

LEVERAGING DATA INSIGHTS TO DIRECT MARKETING STRATEGY

A RESEARCH PAPER

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

MASTER OF SCIENCE

BY

JASON C. WRIGHT

DR. WILLIAM HOLMES FINCH – ADVISOR

BALL STATE UNIVERSITY

MUNCIE, IN

DECEMBER 2019

## **Introduction**

The collection of large-scale data presents both tremendous opportunity and great challenges to businesses. Through this collection, a business may gain greater access to higher volumes of information, allowing trends to be identified more quickly and easily, and leading to more informed decision-making. However, it is the sheer volume of data that can pose an obstacle to the business wishing to leverage it. A reliable quantitative method is needed to accurately analyze data and to form actionable insights for the business. By utilizing these methods to interface with the data, the data becomes a powerful resource for recognizing and responding to market trends.

Online customer reviews can serve as a rich source of data for a business to learn more about how its products and services are received by its consumer base. The current research aims to explore the existing research on how customer review and word-of-mouth marketing, along with businesses' responses thereof, impact business performance. The impacts of cultural differences among consumers will also be explored in the literature. Finally, the current research will identify trends within customer review data using data mining and non-parametric statistical techniques. The results of this analysis will demonstrate a quantitative method by which to gain insights from data to be leveraged in consumer interaction and marketing strategy.

## **Literature Review**

While online reviews and customer forums provide a business with the means to collect information about its customers and the reception of its products and services, such tools also allow customers to exchange information with one another. For better or worse, the customer base becomes, at least in part, its own source of marketing. We can see in the literature examples

of the impacts that both positive and negative reviews and word-of-mouth marketing can have upon the business.

Researchers Anderson and Magruder (2012) found in a regression analysis of restaurant reviews from Yelp.com that for every additional half star given to the average rating of a restaurant, there was a corresponding increase in the frequency of that restaurant's reservations being fully booked. This research suggests that more positive reviews drive an increase in patronage.

Morgan and Rego (2006) arrived upon similar conclusions in their research. They found that among customer feedback metrics taken from the American Customer Satisfaction Index, including average satisfaction, top 2 box, complaints, net promoters, repurchase likelihood, and number of recommendations, average satisfaction was shown to be the best predictor of total shareholder returns. We see then, that higher average ratings of customer satisfaction are shown not only to be a reliable indicator of increased patronage, but also of increased financial success for a business and its stakeholders.

Conversely, there can be harmful consequences to performance when customers are not satisfied. Luo (2009) found in a study on the impact of negative word-of-mouth (NWOM) in the airline industry that NWOM bore a significant impact on the financial performance of an airline. Indeed, an instance of NWOM could result in a loss of over \$1.8 million for an airline in the following month (Luo, 2009, p. 156). Luo's (2009) research goes on to show that NWOM not only has a significant and negative impact on cash flow for a business in the short term, but that there can be farther-reaching consequences as well. NWOM can result in a decrease in a firm's stock price, in turn leading to further losses over time. It is therefore critical to a firm's financial

success to not only seek more positive reviews and word-of-mouth marketing, but also critical to identify dissatisfaction among consumers as early as possible so that it can be addressed.

Provided that a business can identify dissatisfaction, how can that dissatisfaction be addressed effectively, and ideally remedied? A study on customer complaints by Conlon and Murray (1996) found that companies' responses to complaints yielded the most favorable results from customers when the company accepted responsibility for the complaint made, and that customers also responded more favorably when compensation was offered as part of the company's response. Customers were less satisfied with responses when they were perceived not to have been sent in a timely fashion, and when the product about which a complaint was made was expensive.

These findings are supported by the conclusions of Kim, Park, Cha, and Jeong (2015), in which qualitative and quantitative methods were used to analyze activity on Twitter following a negative incident with Domino's Pizza. The researchers found that Domino's was mentioned five times more frequently in tweets than it was in the week prior to the incident (Kim et al., 2015, p. 6). While negative affect surrounding Domino's spiked quickly following the incident, however, the negative response quickly subsided following issuance of a public apology from the company's president. It is perhaps worth noting that even with the gap in time between Conlon and Murray's (1996) research and Kim et al.'s (2015) research, the finding remained consistent that a company may reduce customer dissatisfaction simply through statements of accepting accountability for fault. It should also be noted that as with the findings of Conlon and Murray (1996), the timeliness of the response in the Domino's case researched by Kim et al. (2015) was a likely contributor to the rapid decrease in negative sentiment following the incident.



Timeliness of response was shown to be a significant factor in how favorably customers responded to hotels' responses to customer complaints in a study by Xie, So, and Wang (2017). To build further upon the factors which determine the effectiveness of a response to complaints, the researchers found that customers preferred responses from functional staff members and departments that could provide a hands-on solution to their problem rather than responses from executive management. Customers also responded more favorably to responses when the complaint was not repeated within it (Xie et al., 2017, p. 106). When those criteria of timely response from a functioning staff member or department and without repetition of the complaint were met, there was an increase in hotel revenue. Not effectively addressing complaints in that manner resulted in a decrease in revenue.

Together, the findings of Conlon and Murray (1996), Kim et al. (2015), and especially Xie et al. (2017) show that a business must not only respond to complaints quickly, but must also do so in a particular, results oriented fashion to achieve the most favorable results. When a business can provide a rapid response, accept responsibility for faults, and provide compensation or hands-on solutions to a problem without simply echoing the complaint back to the consumer, they are much more likely to diminish or even reverse negative sentiment. In so doing, the business is also much more likely to avoid the negative impacts seen in the research of Luo (2009) and Xie et al. (2017). In the simplest of terms, a business needs to make its customers feel that they are being heard and that action is being taken to address their concerns. This need underscores the importance of being able to leverage the data to quickly identify dissatisfaction when it arises, so that a response can be made.

Once again, the volume of data and size of the consumer base may introduce additional difficulty in identifying and responding to consumer needs. If trends in sentiment and behavior

can be identified within a specific segment of the market, then a business can tailor its approach in monitoring and responding to that segment more effectively. For example, if a consumer group is identified as having a more negative orientation, then a business may choose to focus more resources on addressing that segment's concerns in order to mitigate any harmful impacts that might arise from negative reviews or NWOM. A negatively oriented customer group may also be further analyzed to gain insights into a firm's weaknesses.

In the same way, a more positively oriented customer group may be leveraged by a firm as a means of identifying its strengths, or as a source of positive review that could be promoted as a means of trying to sway other customers. A firm might even choose which groups it prefers to focus marketing itself towards based on the level of maintenance that could go into satisfying each customer group.

To more greatly understand cultural differences among consumers, the current study once again turns to the findings of past research. Zhang, Beatty, and Walsh (2008) proposed the idea of "cultural service personalities" as distinct sets of tendencies between culturally distinct groups of consumers. Their research suggests that consumers in Western markets have higher service expectations and are therefore more difficult to please and more likely to issue complaints as compared to consumers in Eastern markets. One possible explanation for this finding is that Western consumers, being generally more individualistic, have higher expectations for individual attention from service providers (Zhang et al., 2008, p. 221).

Differences in individualist and collectivist cultures are further explored in research by Hong, Huang, Burtch, and Li (2014). The researchers found in a text mining analysis of online customer reviews that consumers from collectivist cultures were less likely to deviate from the average rating given compared to consumers from individualist cultures. Consumers from

individualist cultures were also found to be more likely than collectivist consumers to write more emotional reviews.

Mariani, Fatta, and Felice (2018) observed the effects of other cultural measurements on customer satisfaction in hotel reviews. The researchers found that customers from cultures with higher power distance ratings gave lower ratings of hotels. The same finding was seen for customers high in individualism and uncertainty avoidance. Customers with higher ratings of long-term orientation and indulgence were both more likely to give higher ratings of hotels. These findings echo what is seen in the research by Zhang et al. (2008) showing a greater tendency among Western individualist customers to have high expectations of service and being difficult to please.

Tsai and Men (2017) explored differences in social media engagement on brand pages for American and Chinese customers. While both consumer groups reported that their primary reasons for engagement with brand pages were information seeking and entertainment, the two groups were contrasted from one another in other ways. Chinese customers reported engaging in brand pages as a source of social benefit, where they could interact with other customers while Americans considered this less important. American customers were more motivated to engage with brand pages when they stood to receive more tangible benefits, such as discounts on goods (Tsai and Men, 2017, p. 15). The researchers also found that Chinese customers showed a much higher level of engagement within brand pages on social media than American customers did. Given their higher level of activity and greater prioritization of social benefit, Chinese customers also placed more value in the opinions of other social media users.

Contrary to research highlighting the differences between consumers of varying cultural backgrounds, Blocker (2011) presents a conceptual framework of customer value as an

interaction of benefits including offer quality, personal interaction, service support, and know-how, and sacrifices including direct costs, acquisition costs, and operation costs (Blocker, 2011, p. 534). These measures were found to be largely explanatory of customer satisfaction across cultures and the framework can therefore be thought of as being generalizable to distinct consumer groups (Blocker, 2011, p. 536).

Considering the findings of Zhang et al. (2008), Hong et al. (2014), and Tsai and Men (2017) in conjunction with one another, we may draw some conclusions about how the reviewing activity of consumers may affect each other and the business within Western and Eastern markets. The research shows that American consumers and consumers of other individualist countries are more likely to voice dissatisfaction, but also more likely to deviate from prior opinion, while the opposite appears to be true for Chinese and other collectivist consumers (Zhang et al., 2008; Hong et al., 2014). Given also that Chinese consumers are more active in brand social media and word of mouth marketing (Tsai and Men, 2017), we might conclude that while Western consumers are more likely to voice dissatisfaction, dissatisfactions among Eastern consumers are more likely to influence the opinions of other consumers. Furthermore, negative opinions among Eastern consumers may be more difficult or slow to change if a negative orientation pervades the community. If that were the case, however, it would also stand to reason that a positive orientation among Eastern consumers would also be slow and difficult to change. Western consumers might be considered as a fickle and more short-term oriented consumer base, which would carry its own benefits and challenges for marketers.

## **Methodology**

The current research method utilizes an Amazon customer review public dataset consisting of a total of over 9.8 million reviews written by customers from the United States,

United Kingdom, France, Germany, and Japan. Each row of the data represents one product review. The measures considered for this analysis are the country in which the review was written, the customer ID number of the reviewer, the product category of the item being reviewed, the star rating given to the item by the reviewer, the number of “helpful” votes given to the review by other customers, along with the total number of votes, and lastly the length of the body of the review.

For the purposes of the current research, the star rating given in a review is used as a measure of customer positivity. The number of helpful votes is used as a measure of the value that customers place on existing reviews, referred to here as social value. The number of total votes given, and the length of the review are considered as measures of engagement with the review platform. These constructs are analyzed at three levels of granularity. These levels are the country, product category, and customer ID number. This method is intended to show whether significant difference exist between the measures of customer positivity, social value, and engagement between reviewers from different countries, between reviewers reviewing products within a specific product category, and between individual customers. The current research also presents a method for predicting the star rating given in a review based on the country and product category. This is intended to further explore whether customers from certain countries are more inclined toward positive reviews or whether customers tend to feel more positively towards specific kinds of products. The same method is used to predict the number of helpful votes given based on country, product category, star rating and review length. The goal of this analysis is to gain insight into whether a greater amount of social value tends to be present within a country or product category, and also to show if the helpfulness of a review is more a product of the positivity or length of a review, rather than being based on characteristics of the user

providing the vote. Lastly, the predictive analysis is used to predict the length of review based on country, product category, and star rating. This is done to explore whether there is a tendency to give more verbose reviews within a country or category, or if customers tend to give lengthier reviews based on how positively they felt about a product.

To account for the unequal number of reviews between countries, product categories, and customers, the nonparametric Kruskal-Wallis test is used to compare each of the measures between groups. Dunn's test is used with a Bonferroni correction as a post-hoc test for the Kruskal-Wallis. Finally, a CART analysis is used for the predictive analyses.

## **Results**

All Kruskal-Wallis tests returned significant p-values  $< 0.01$  for all comparisons used. This finding suggests that there are significant differences in the positivity, social value, and engagement at all levels of granularity. The post-hoc tests are used to review these relationships in greater detail. All output from the analyses run in R can be found in the appendix.

The adjusted p-values in the Dunn's test comparing star ratings between countries shows significant differences for all countries compared, with the largest difference being between Japan and the United Kingdom. Germany and the United States show the most similar measures of positivity. Contrary to what would be expected from the prior research, Japan also appears to consistently tend towards more negative reviews according to the results of Dunn's test.

Moving on to the comparison of helpful votes between countries, Dunn's test shows significant differences between all countries except for Germany and France. More consistent with prior research, Japan shows a strong tendency towards a greater number of helpful votes. The United States and United Kingdom likewise consistently show a stronger tendency towards a lower number of helpful votes.

Looking at the Dunn's test results for the comparison of total votes between countries, and the Dunn's test results for the comparison of review lengths between countries, significant differences between all countries are found once again. Japan shows consistently stronger tendencies towards a higher number of total votes and greater review lengths compared with all other countries in the data. The United States shows a stronger tendency towards greater review length as compared with the United Kingdom, but otherwise shows a tendency to measure lower on both measures compared to all other countries in the data.

The results of the Kruskal-Wallis tests and Dunn's tests with Bonferroni correction suggest that contrary to prior research, customers in Japan, a country in an Eastern market, have a stronger tendency towards writing negative reviews compared to the United States and other Western countries in the data, the United Kingdom, Germany, and France. However, the results also show a consistency with previous findings on social value and engagement, those measures being higher among Japanese customers than those of Western countries.

Shifting focus from differences between countries, the results of the Kruskal-Wallis tests and Dunn's tests for the product category comparisons each yielded 703 direct comparisons between each of the product categories present in the data. While the Kruskal-Wallis test returned a significant p-value for this comparison, not all adjusted p-values returned in the Dunn's test show a significant difference for all product category comparisons. Among those differences which were found to be statistically significant in the Dunn's test results, music purchases account for most of the largest differences in star ratings, frequently appearing as significantly more positive than other product categories. Other product category comparisons showed much smaller differences in their star ratings as compared to those showed with the music category, even when the differences were found to be highly statistically significant. This

finding suggests that customers have a stronger tendency to feel positively about music purchases than about other product categories. No category appeared to be consistently rated lower than other categories.

In terms of helpful votes between product categories, the Dunn's test interestingly shows that reviews for physical books are typically found to be far more helpful than reviews for e-books. In fact, the results suggest that book reviews are found to be more helpful than reviews for products in other categories in general. Similar to what was seen with star ratings, the results also show that music reviews are frequently found to be significantly more helpful than reviews in other categories. Video and DVD purchases show a similar trend in helpful votes. These results suggest that customers may place more value on reviews of media than on reviews of more physical goods. These same findings are echoed in the results for the comparison of total votes between countries. It stands to reason that a greater number of helpful votes within a product category would correspond with a higher number of total votes within that same category.

While the Dunn's test returned many statistically significant adjusted p-values for the comparison of review length across product categories, none of the differences observed appeared to be large. This suggests that review length is not largely driven by the category of the product being reviewed.

For the predictive analyses, five random samples of 1000 rows each were taken from the full dataset to preserve processing power. These five samples were then used to generate regression trees to predict star rating, helpful votes, and review length.

The five trees built to predict star rating show slightly different results for each sample used, and the fifth sample shows no branching at all, suggesting that there were no significant



differences in star ratings between any of the countries or product categories in that sample. The overall results do suggest, however, that product category plays a predictive role in the star rating of the review more than the country does, as none of the splits shown occur based on a country variable. The results also show with some consistency that the home entertainment and wireless categories appear to have a tendency towards lower star ratings, and that the overall average of star ratings for the sample is about 4.3, and this rating actually is seen for the majority of reviews in every sample.

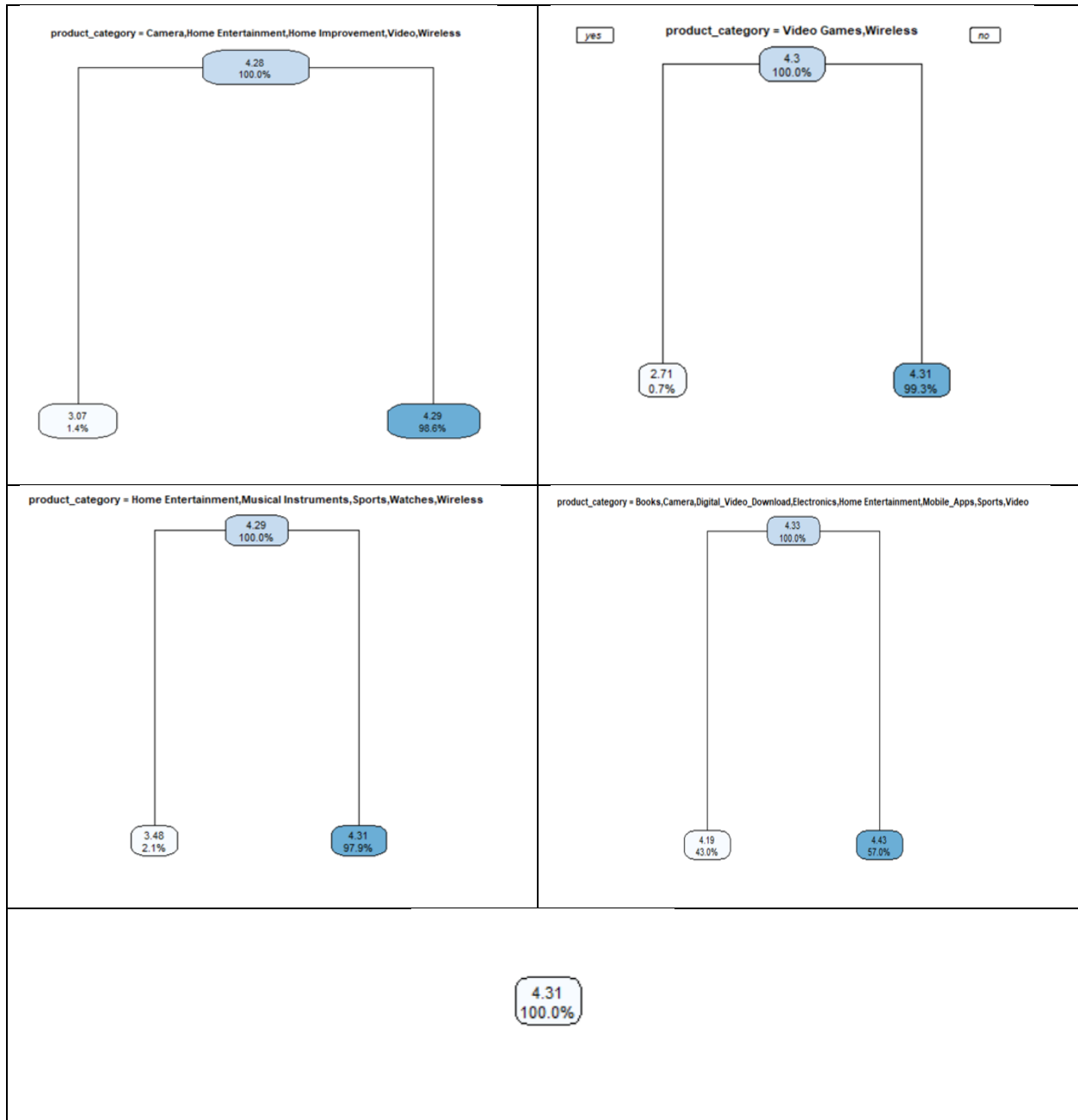
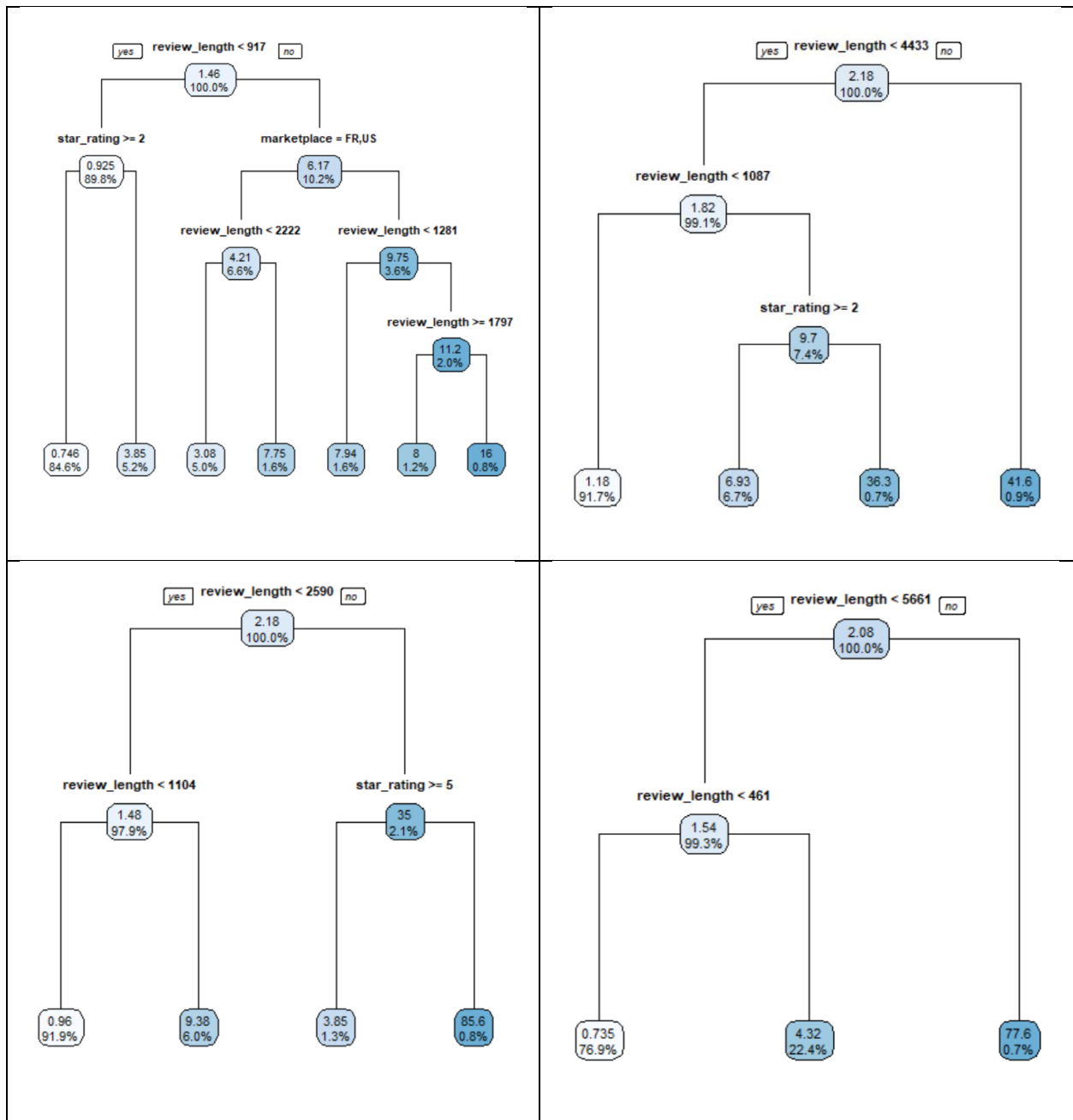


Table 1: The regression trees for prediction of star rating.

While the five samples produced regression trees of very different structures for the prediction of helpful votes, it appears consistent across models that review length is a key predictor. The models suggest that greater review length predictably leads to a higher number of helpful votes. In those models where star rating appears as a predictor, it appears that reviews on the more extreme ends of the scale (being  $\leq 2$  or  $\geq 5$ ) are considered to be more helpful.



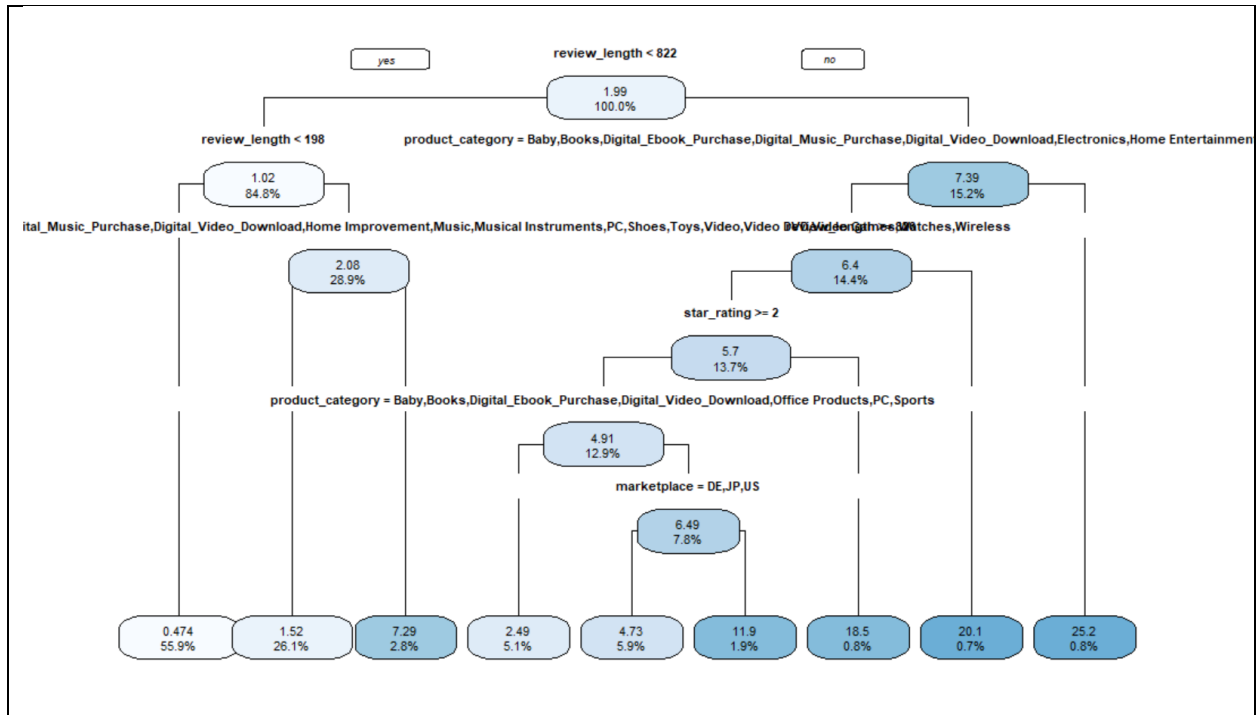
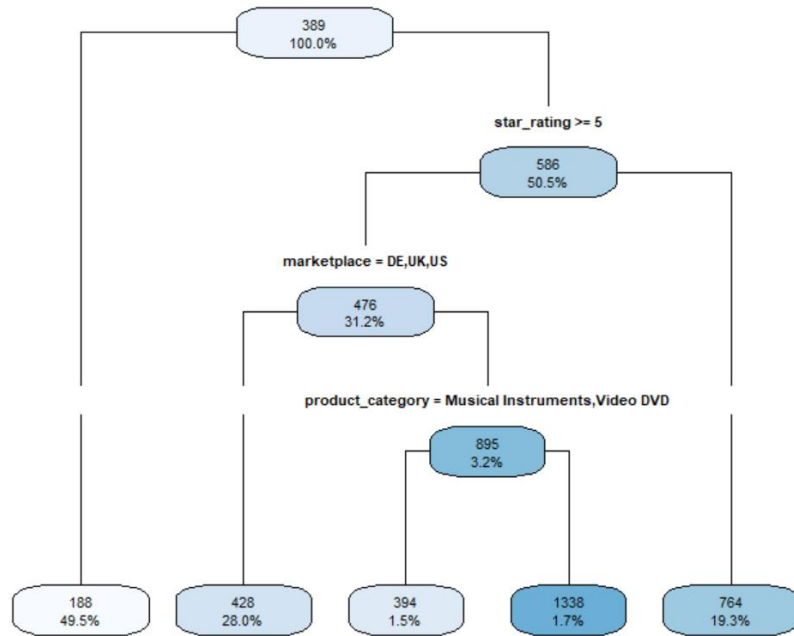


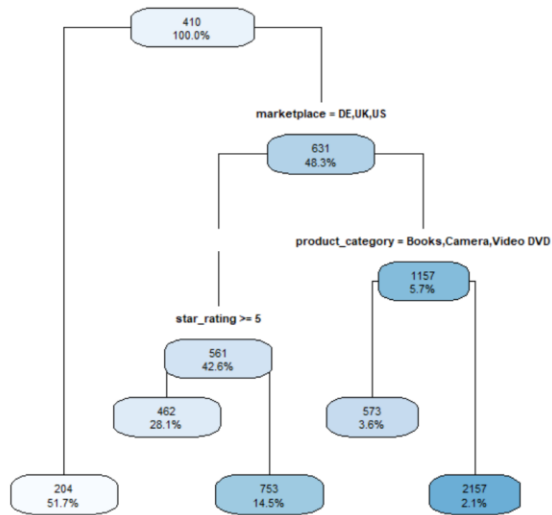
Table 2: The regression trees for prediction of helpful votes.

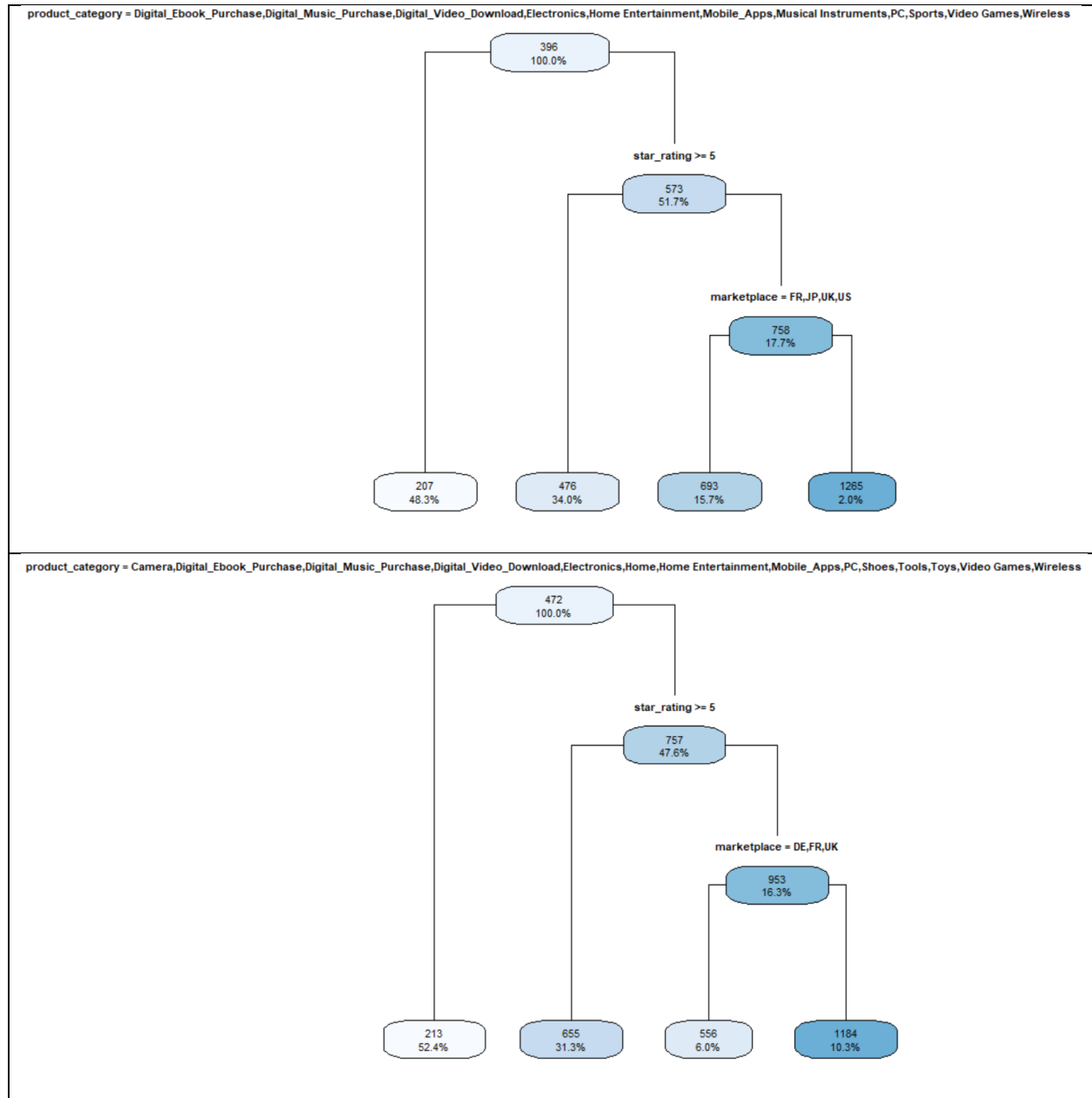
The regression trees to predict review length consistently show the reviews with a star rating under 5 tend to have a shorter review length than reviews with 5 stars. Germany, the United States, and United Kingdom also appear to have generally shorter reviews across the samples. Product category appears to make up much of any remaining variability in review length.

product\_category = Digital\_Ebook\_Purchase,Digital\_Video\_Download,Electronics,Home,Home Improvement,Mobile\_Apps,PC,Tools,Toys,Video Games,Watches,Wireless



product\_category = Baby,Digital\_Ebook\_Purchase,Digital\_Music\_Purchase,Digital\_Video\_Download,Home Entertainment,Mobile\_Apps,Mobile\_Electronics,Musical Instruments,PC,Shoes,Tools,Toys,Video Games,Watches





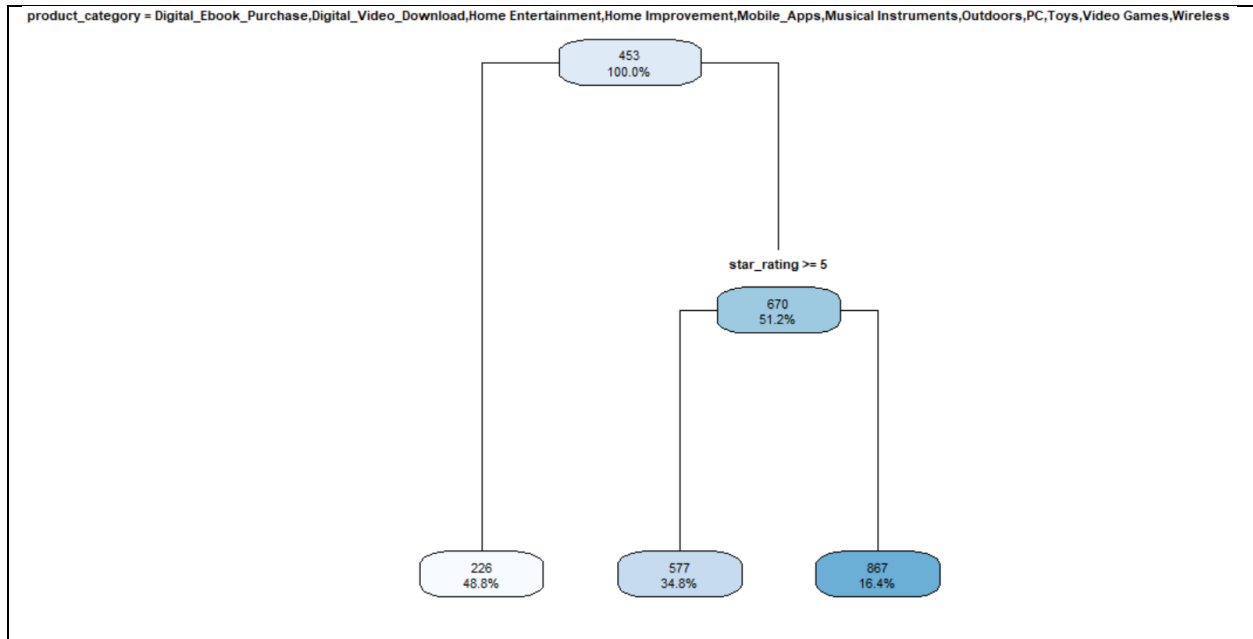


Table 3: The regression trees for prediction of review length.

## Discussion

To reiterate the key findings of the nonparametric analyses, the results suggest that Japanese customers have a stronger tendency compared to other customers to give lower star ratings, but more helpful votes, more total votes, and longer reviews. The strongest tendency towards positive reviews is seen in the United Kingdom. The United Kingdom also showed the strongest tendency towards writing the shortest reviews, but the United States showed a stronger tendency towards fewer helpful votes and total votes than the United Kingdom. The basic comparisons are visualized in Table 4. The results contradict the findings of Zhang et al. (2008) in that the researcher's found Western customers to be more likely to voice complaints and be more difficult to please. However, the results do show support for the findings of Tsai and Men (2017), in that Japanese customers were found to place more value on previous reviews and to be more engaged in the review platform, as measured through helpful votes, total votes, and review length.

star_rating								
JP	<	FR	<	DE	<	US	<	UK
helpful_votes								
US	<	UK	<	FR	<	DE	<	JP
total_votes								
US	<	UK	<	FR	<	DE	<	JP
review_length								
UK	<	US	<	FR	<	DE	<	JP

Table 4: A visualization Dunn's test results for comparisons between countries.

The analyses of product category differences show that the strongest tendency towards positive star ratings is found in music purchases, and that reviews for books, videos, and DVDs were generally considered to be the most helpful. It should be noted that these trends are observed at an international level, as this segment of the analysis observed differences between product categories irrespective of the country variable.

Despite the findings of the Kruskal-Wallis analyses, the regression tree tests did not offer strong support for there being significant differences in star rating, helpful votes, or review length based on country. Rather, product category was shown to drive differences in star rating more than country, and those differences were shown to be small. This finding suggests that the positivity of the review has more to do with the quality of the individual product than does the culture of the reviewer or the leanings of customers within a product category. This provides support for the findings of Blocker (2011), that measures of customer value may be generalized across culture.

Product category and star rating do appear to be important predictors of review length, which in turn is a strong predictor of helpful votes. It could be the case that customers seek more information within certain product categories about which they have less knowledge, and lengthier reviews, providing more information, would be considered more valuable by those seeking to be more in the know about those categories. The fact that reviews with more polar star



ratings are considered more helpful may be due to customers being more interested in what the best and worst points of the product are according to other customers.

What insight this may provide to business users is that it is of greater importance to monitor reviews with polar star ratings, especially with larger amounts of review text, as these appear to be the ratings which customers engage the most with. As shown in the research of Luo (2009), NWOM can quickly snowball into negative impacts for the business, and the current research suggests that negative reviews garner a higher amount of attention, so it becomes important to address complaints quickly if these effects are to be mitigated. Should merit be placed upon the findings of the Kruskal-Wallis and Dunn's test results, then the Japanese market can be identified as a segment to be monitored more closely for these effects, as they showed a stronger tendency towards both negativity and engagement. Conversely, the results would suggest that customers in the United States and United Kingdom are lower maintenance, being more positive and less engaged.

The current research faces some limitations in that the data analyzed consisted of reviews from only five countries with five of them being Western. Stronger conclusions could be formed about cultural characteristics with greater representation of customers across the globe. The research was also somewhat limited by computing power over a large dataset, forcing the use of smaller samples for the CART analysis and the dropping of post-hoc analysis at an individual customer level.

Future research should consider a larger, more global customer base and various interaction effects to more completely understand what drives customer review behaviors. In addition to the measures considered within the current research, buying behavior should be considered as well, to explore the relationship between reviews and purchases.

## Acknowledgements

I would like to thank my advisor, Dr. William Holmes Finch for his instruction, patience, and support in helping me to reach this point in my academic career. Thank you to the Ball State University Teachers College, Miller College of Business, and the Graduate School for accepting me into their programs and enabling me to carry out this research. Thanks to Linda Jones for her assistance in the research approval process. I would like to thank Dr. Eric Olofson, who has served as a mentor to me both in academia and in life. Thank you to my father, who helped to guide me in my path to Ball State and the Quantitative Psychology program. Finally, thank you to my wife, who provided unyielding support through high points and low, and pushed me to see this through to the end.

## References

- Anderson, M., & Magruder, J. (2012). Learning from the crowd: Regression discontinuity estimates of the effects of an online review database. *The Economic Journal*, 122(563), 957-989. doi:10.1111/j.1468-0297.2012.02512.x
- Blocker, C. P. (2011). Modeling customer value perceptions in cross-cultural business markets. *Journal of Business Research*, 64(5), 533-540. doi:10.1016/j.jbusres.2010.05.001
- Conlon, D. E., & Murray, N. M. (1996). Customer perceptions of corporate responses to product complaints: The role of explanations. *The Academy of Management Journal*, 39(4), 1040-1056. doi:10.2307/256723
- Hong, Y., Huang, N., Burtch, G., Li, C., Arizona State University, University of Minnesota, & Temple University. (2016). Culture, conformity, and emotional suppression in online reviews. *Journal of the Association for Information Systems*, 17(11), 737-758. doi:10.17705/1jais.00443
- Kim, H., Park, J., Cha, M., & Jeong, J. (2015). The effect of bad news and CEO apology of corporate on user responses in social media. *PloS One*, 10(5), e0126358-e0126358. doi:10.1371/journal.pone.0126358
- Luo, X. (2009). Quantifying the long-term impact of negative word of mouth on cash flows and stock prices. *Marketing Science*, 28(1), 148-165. doi:10.1287/mksc.1080.0389
- Mariani, M., Di Fatta, G., & Di Felice, M. (2019). Understanding customer satisfaction with services by leveraging big data: The role of services attributes and consumers' cultural background. *IEEE Access*, 7, 8195-8208. doi:10.1109/ACCESS.2018.2887300
- Morgan, N. A., & Rego, L. L. (2006). The value of different customer satisfaction and loyalty metrics in predicting business performance. *Marketing Science*, 25(5), 426-439. doi:10.1287/mksc.1050.0180

- Tsai, W. S., & Men, L. R. (2017). Consumer engagement with brands on social network sites: A cross-cultural comparison of china and the USA. *Journal of Marketing Communications*, 23(1), 2-21. doi:10.1080/13527266.2014.942678
- Xie, K. L., So, K. K. F., & Wang, W. (2017). Joint effects of management responses and online reviews on hotel financial performance: A data-analytics approach. *International Journal of Hospitality Management*, 62, 101-110. doi:10.1016/j.ijhm.2016.12.004
- Zhang, J., Beatty, S. E., & Walsh, G. (2008). Review and future directions of cross-cultural consumer services research. *Journal of Business Research*, 61(3), 211-224. doi:10.1016/j.jbusres.2007.06.003

## Appendix

### R Output

#### Kruskal-Wallis Tests

##### Marketplace

```
> kruskal.test(star_rating~marketplace)

      Kruskal-Wallis rank sum test

data:  star_rating by marketplace
Kruskal-Wallis chi-squared = 13161, df = 4, p-value < 2.2e-16

> kruskal.test(helpful_votes~marketplace)

      Kruskal-Wallis rank sum test

data:  helpful_votes by marketplace
Kruskal-Wallis chi-squared = 610000, df = 4, p-value < 2.2e-16

> kruskal.test(total_votes~marketplace)

      Kruskal-Wallis rank sum test

data:  total_votes by marketplace
Kruskal-Wallis chi-squared = 726475, df = 4, p-value < 2.2e-16

> kruskal.test(review_length~marketplace)

      Kruskal-Wallis rank sum test

data:  review_length by marketplace
Kruskal-Wallis chi-squared = 611665, df = 4, p-value < 2.2e-16
```

##### Product Category

```
> kruskal.test(star_rating~product_category)

      Kruskal-Wallis rank sum test

data:  star_rating by product_category
Kruskal-Wallis chi-squared = 75020, df = 37, p-value < 2.2e-16

> kruskal.test(helpful_votes~product_category)

      Kruskal-Wallis rank sum test

data:  helpful_votes by product_category
Kruskal-Wallis chi-squared = 958965, df = 37, p-value < 2.2e-16
```

```
> kruskal.test(total_votes~product_category)

Kruskal-Wallis rank sum test

data: total_votes by product_category
Kruskal-Wallis chi-squared = 1264029, df = 37, p-value < 2.2e-16

> kruskal.test(review_length~product_category)

Kruskal-Wallis rank sum test

data: review_length by product_category
Kruskal-Wallis chi-squared = 1200364, df = 37, p-value < 2.2e-16
```

## Customer ID

```
Kruskal-Wallis rank sum test

data: star_rating by customer_id
Kruskal-Wallis chi-squared = 6695662, df = 5627720, p-value < 2.2e-16

> kruskal.test(helpful_votes~customer_id)

Kruskal-Wallis rank sum test

data: helpful_votes by customer_id
Kruskal-Wallis chi-squared = 7175509, df = 5627720, p-value < 2.2e-16

> kruskal.test(total_votes~customer_id)

Kruskal-Wallis rank sum test

data: total_votes by customer_id
Kruskal-Wallis chi-squared = 7243417, df = 5627720, p-value < 2.2e-16

> kruskal.test(review_length~customer_id)

Kruskal-Wallis rank sum test

data: review_length by customer_id
Kruskal-Wallis chi-squared = 8733204, df = 5627720, p-value < 2.2e-16
```

## Post Hoc

```
> dunnTest(star_rating~marketplace,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z	P.unadj	P.adj
1	DE - FR	25.01390	4.315660e-138	4.315660e-137
2	DE - JP	52.93539	0.000000e+00	0.000000e+00
3	FR - JP	22.81516	3.242767e-115	3.242767e-114
4	DE - UK	-54.09960	0.000000e+00	0.000000e+00
5	FR - UK	-63.85741	0.000000e+00	0.000000e+00
6	JP - UK	-95.04600	0.000000e+00	0.000000e+00
7	DE - US	-9.04006	1.565853e-19	1.565853e-18
8	FR - US	-34.48969	1.145181e-260	1.145181e-259
9	JP - US	-66.96223	0.000000e+00	0.000000e+00
10	UK - US	77.38893	0.000000e+00	0.000000e+00

```
> dunnTest(helpful_votes~marketplace,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z	P.unadj	P.adj
1	DE - FR	1.973349	0.04845578	0.4845578
2	DE - JP	-306.565506	0.00000000	0.00000000
3	FR - JP	-254.821826	0.00000000	0.00000000
4	DE - UK	358.637846	0.00000000	0.00000000
5	FR - UK	239.809046	0.00000000	0.00000000
6	JP - UK	581.457337	0.00000000	0.00000000
7	DE - US	430.352671	0.00000000	0.00000000
8	FR - US	268.632318	0.00000000	0.00000000
9	JP - US	629.485550	0.00000000	0.00000000
10	UK - US	38.265420	0.00000000	0.00000000

```
> dunnTest(total_votes~marketplace,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z	P.unadj	P.adj
1	DE - FR	63.91031	0	0
2	DE - JP	-251.23339	0	0
3	FR - JP	-260.87909	0	0
4	DE - UK	460.24164	0	0
5	FR - UK	240.62014	0	0
6	JP - UK	590.32046	0	0
7	DE - US	545.54766	0	0
8	FR - US	269.83752	0	0
9	JP - US	639.18706	0	0
10	UK - US	39.09612	0	0

```
> dunnTest(review_length~marketplace,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z	P.unadj	P.adj
1	DE - FR	87.77597	0	0
2	DE - JP	-75.95465	0	0
3	FR - JP	-136.06891	0	0
4	DE - UK	566.96628	0	0
5	FR - UK	286.52411	0	0
6	JP - UK	471.19782	0	0
7	DE - US	578.86773	0	0
8	FR - US	263.33527	0	0
9	JP - US	457.90608	0	0
10	UK - US	-90.52443	0	0

```
> dunnTest(star_rating~product_category,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z
1	Apparel - Automotive	1.63085139
2	Apparel - Baby	-0.67532680
3	Automotive - Baby	-7.77392053
4	Apparel - Beauty	-0.05727254
5	Automotive - Beauty	-1.16464266
6	Baby - Beauty	0.37734497
7	Apparel - Books	0.09379580
8	Automotive - Books	-5.56832607
9	Baby - Books	7.46159592
10	Beauty - Books	0.13028703
11	Apparel - Camera	0.72978506
12	Automotive - Camera	-3.28931182
13	Baby - Camera	11.88643994
14	Beauty - Camera	0.54923719
15	Books - Camera	10.68217922
16	Apparel - Digital_Ebook_Purchase	0.45791962
17	Automotive - Digital_Ebook_Purchase	-4.30424045
18	Baby - Digital_Ebook_Purchase	10.99059564
19	Beauty - Digital_Ebook_Purchase	0.36991554
20	Books - Digital_Ebook_Purchase	26.57246824
21	Camera - Digital_Ebook_Purchase	-4.59413163
22	Apparel - Digital_Music_Purchase	-2.31544031
23	Automotive - Digital_Music_Purchase	-13.88316551
24	Baby - Digital_Music_Purchase	-15.33900453
25	Beauty - Digital_Music_Purchase	-1.45553355
26	Books - Digital_Music_Purchase	-81.06178167
27	Camera - Digital_Music_Purchase	-46.85450782
28	Digital_Ebook_Purchase - Digital_Music_Purchase	-94.64581199
29	Apparel - Digital_Video_Download	1.27484957
30	Automotive - Digital_Video_Download	-1.46596696

31	Baby - Digital_Video_Download	18.86052403
32	Beauty - Digital_Video_Download	0.90754138
33	Books - Digital_Video_Download	79.62580142
34	Camera - Digital_Video_Download	9.10757239
35	Digital_Ebook_Purchase - Digital_Video_Download	58.47020333
36	Digital_Music_Purchase - Digital_Video_Download	120.28156879
37	Apparel - Electronics	2.21281801
38	Automotive - Electronics	1.76143252
39	Baby - Electronics	23.41278304
40	Beauty - Electronics	1.52663734
41	Books - Electronics	30.66659009
42	Camera - Electronics	16.47696103
43	Digital_Ebook_Purchase - Electronics	25.47553596
44	Digital_Music_Purchase - Electronics	61.31173845
45	Digital_Video_Download - Electronics	13.60447473
46	Apparel - Furniture	4.10565903
47	Automotive - Furniture	3.86258407
48	Baby - Furniture	6.08089946
49	Beauty - Furniture	3.32155277
50	Books - Furniture	5.41720726
51	Camera - Furniture	4.84251100
52	Digital_Ebook_Purchase - Furniture	5.09253984
53	Digital_Music_Purchase - Furniture	7.56441854
54	Digital_Video_Download - Furniture	4.36393586
55	Electronics - Furniture	3.51655609
56	Apparel - Grocery	-1.40976810
57	Automotive - Grocery	-2.17601861
58	Baby - Grocery	-1.24626098
59	Beauty - Grocery	-1.26343363
60	Books - Grocery	-1.55392746
61	Camera - Grocery	-1.80633164
62	Digital_Ebook_Purchase - Grocery	-1.69843312
63	Digital_Music_Purchase - Grocery	-0.59746848
64	Digital_Video_Download - Grocery	-2.02263603
65	Electronics - Grocery	-2.39601937



66	Furniture - Grocery	-3.62221997
67	Apparel - Health & Personal Care	3.44203532
68	Automotive - Health & Personal Care	4.57593687
69	Baby - Health & Personal Care	13.55893574
70	Beauty - Health & Personal Care	2.38654051
71	Books - Health & Personal Care	11.74519257
72	Camera - Health & Personal Care	9.42891437
73	Digital_Ebook_Purchase - Health & Personal Care	10.52380148
74	Digital_Music_Purchase - Health & Personal Care	19.76434734
75	Digital_Video_Download - Health & Personal Care	7.77837238
76	Electronics - Health & Personal Care	4.49679647
77	Furniture - Health & Personal Care	-2.22159352
78	Grocery - Health & Personal Care	2.92154670
79	Apparel - Home	0.22743487
80	Automotive - Home	-4.61971970
81	Baby - Home	5.35831927
82	Beauty - Home	0.21872557
83	Books - Home	1.00498402
84	Camera - Home	-3.41467774
85	Digital_Ebook_Purchase - Home	-1.69322838
86	Digital_Music_Purchase - Home	18.51823665
87	Digital_Video_Download - Home	-7.74165625
88	Electronics - Home	-13.16527109
89	Furniture - Home	-5.25867546
90	Grocery - Home	1.60549635
91	Health & Personal Care - Home	-10.29225600
92	Apparel - Home Entertainment	2.66833831
93	Automotive - Home Entertainment	3.32456491
94	Baby - Home Entertainment	28.35084056
95	Beauty - Home Entertainment	1.82616362
96	Books - Home Entertainment	43.81227929
97	Camera - Home Entertainment	23.52805724
98	Digital_Ebook_Purchase - Home Entertainment	37.76166082
99	Digital_Music_Purchase - Home Entertainment	77.57280735
100	Digital_Video_Download - Home Entertainment	23.72192510

101	Electronics - Home Entertainment	5.06898106
102	Furniture - Home Entertainment	-3.11336101
103	Grocery - Home Entertainment	2.57670996
104	Health & Personal Care - Home Entertainment	-3.02917410
105	Home - Home Entertainment	16.67075231
106	Apparel - Home Improvement	1.06109580
107	Automotive - Home Improvement	-1.93267932
108	Baby - Home Improvement	9.75383222
109	Beauty - Home Improvement	0.77075771
110	Books - Home Improvement	6.63920138
111	Camera - Home Improvement	2.15629589
112	Digital_Ebook_Purchase - Home Improvement	4.17140073
113	Digital_Music_Purchase - Home Improvement	22.64163372
114	Digital_Video_Download - Home Improvement	-1.37287618
115	Electronics - Home Improvement	-7.06126838
116	Furniture - Home Improvement	-4.50606221
117	Grocery - Home Improvement	1.93902947
118	Health & Personal Care - Home Improvement	-7.58773362
119	Home - Home Improvement	4.22852285
120	Home Entertainment - Home Improvement	-10.12464376
121	Apparel - Kitchen	3.88830936
122	Automotive - Kitchen	6.21019182
123	Baby - Kitchen	18.41513385
124	Beauty - Kitchen	2.66438735
125	Books - Kitchen	16.80255647
126	Camera - Kitchen	13.63770480
127	Digital_Ebook_Purchase - Kitchen	15.23624793
128	Digital_Music_Purchase - Kitchen	27.02473517
129	Digital_Video_Download - Kitchen	11.70985840
130	Electronics - Kitchen	7.33867539
131	Furniture - Kitchen	-1.90149723
132	Grocery - Kitchen	3.08760574
133	Health & Personal Care - Kitchen	1.06083427
134	Home - Kitchen	14.03698718
135	Home Entertainment - Kitchen	5.51987411

136	Home Improvement - Kitchen	10.63512904
137	Apparel - Lawn and Garden	2.95998356
138	Automotive - Lawn and Garden	3.53675343
139	Baby - Lawn and Garden	13.63096710
140	Beauty - Lawn and Garden	2.04981163
141	Books - Lawn and Garden	11.65707664
142	Camera - Lawn and Garden	8.91894542
143	Digital_Ebook_Purchase - Lawn and Garden	10.22497801
144	Digital_Music_Purchase - Lawn and Garden	21.03955349
145	Digital_Video_Download - Lawn and Garden	7.00511987
146	Electronics - Lawn and Garden	3.18028795
147	Furniture - Lawn and Garden	-2.70931310
148	Grocery - Lawn and Garden	2.71484058
149	Health & Personal Care - Lawn and Garden	-1.37434174
150	Home - Lawn and Garden	9.83339957
151	Home Entertainment - Lawn and Garden	1.46380073
152	Home Improvement - Lawn and Garden	6.75628864
153	Kitchen - Lawn and Garden	-2.72860989
154	Apparel - Luggage	-1.83688587
155	Automotive - Luggage	-6.36246568
156	Baby - Luggage	-2.63448568
157	Beauty - Luggage	-1.22340807
158	Books - Luggage	-4.17982519
159	Camera - Luggage	-5.37843787
160	Digital_Ebook_Purchase - Luggage	-4.88413485
161	Digital_Music_Purchase - Luggage	0.47973640
162	Digital_Video_Download - Luggage	-6.46350923
163	Electronics - Luggage	-8.21697263
164	Furniture - Luggage	-6.67022322
165	Grocery - Luggage	0.68188059
166	Health & Personal Care - Luggage	-9.48564940
167	Home - Luggage	-4.29973649
168	Home Entertainment - Luggage	-9.11128699
169	Home Improvement - Luggage	-5.84177920
170	Kitchen - Luggage	-10.69353377

171	Lawn and Garden - Luggage	-8.89232796
172	Apparel - Mobile_Apps	1.64517558
173	Automotive - Mobile_Apps	-0.17989421
174	Baby - Mobile_Apps	22.47937710
175	Beauty - Mobile_Apps	1.15124153
176	Books - Mobile_Apps	116.32105230
177	Camera - Mobile_Apps	15.39993781
178	Digital_Ebook_Purchase - Mobile_Apps	95.95756111
179	Digital_Music_Purchase - Mobile_Apps	135.93625900
180	Digital_Video_Download - Mobile_Apps	27.20117243
181	Electronics - Mobile_Apps	-8.29897676
182	Furniture - Mobile_Apps	-4.03378034
183	Grocery - Mobile_Apps	2.16959591
184	Health & Personal Care - Mobile_Apps	-6.53637840
185	Home - Mobile_Apps	10.49602681
186	Home Entertainment - Mobile_Apps	-17.54459055
187	Home Improvement - Mobile_Apps	3.88828611
188	Kitchen - Mobile_Apps	-10.11749108
189	Lawn and Garden - Mobile_Apps	-5.54863416
190	Luggage - Mobile_Apps	7.18008777
191	Apparel - Mobile_Electronics	0.62527414
192	Automotive - Mobile_Electronics	-1.00557455
193	Baby - Mobile_Electronics	1.78199269
194	Beauty - Mobile_Electronics	0.52954472
195	Books - Mobile_Electronics	0.86550117
196	Camera - Mobile_Electronics	0.09829276
197	Digital_Ebook_Purchase - Mobile_Electronics	0.42724161
198	Digital_Music_Purchase - Mobile_Electronics	3.76445978
199	Digital_Video_Download - Mobile_Electronics	-0.55606536
200	Electronics - Mobile_Electronics	-1.68554925
201	Furniture - Mobile_Electronics	-3.83764068
202	Grocery - Mobile_Electronics	1.74682217
203	Health & Personal Care - Mobile_Electronics	-3.14828123
204	Home - Mobile_Electronics	0.69320589
205	Home Entertainment - Mobile_Electronics	-2.23328507

206	Home Improvement - Mobile_Electronics	-0.30768797
207	Kitchen - Mobile_Electronics	-3.68511639
208	Lawn and Garden - Mobile_Electronics	-2.57964088
209	Luggage - Mobile_Electronics	2.94393687
210	Mobile_Apps - Mobile_Electronics	-1.00179276
211	Apparel - Music	-1.11363451
212	Automotive - Music	-9.76320140
213	Baby - Music	-4.20183900
214	Beauty - Music	-0.66432026
215	Books - Music	-86.39477866
216	Camera - Music	-30.99858476
217	Digital_Ebook_Purchase - Music	-120.34552576
218	Digital_Music_Purchase - Music	40.85007099
219	Digital_Video_Download - Music	-167.73567643
220	Electronics - Music	-48.18542122
221	Furniture - Music	-6.49401987
222	Grocery - Music	1.07475717
223	Health & Personal Care - Music	-15.80175807
224	Home - Music	-9.95318194
225	Home Entertainment - Music	-64.48567186
226	Home Improvement - Music	-14.83624317
227	Kitchen - Music	-22.01162671
228	Lawn and Garden - Music	-16.41465050
229	Luggage - Music	1.84513492
230	Mobile_Apps - Music	-217.67290144
231	Mobile_Electronics - Music	-2.31883027
232	Apparel - Musical Instruments	1.00627553
233	Automotive - Musical Instruments	-2.27973778
234	Baby - Musical Instruments	12.39453528
235	Beauty - Musical Instruments	0.73214124
236	Books - Musical Instruments	10.20716033
237	Camera - Musical Instruments	2.61430191
238	Digital_Ebook_Purchase - Musical Instruments	6.16106823
239	Digital_Music_Purchase - Musical Instruments	35.59733939
240	Digital_Video_Download - Musical Instruments	-2.94619354

241	Electronics - Musical Instruments	-10.73927815
242	Furniture - Musical Instruments	-4.58566174
243	Grocery - Musical Instruments	1.91643019
244	Health & Personal Care - Musical Instruments	-8.30756443
245	Home - Musical Instruments	4.83501092
246	Home Entertainment - Musical Instruments	-15.63008765
247	Home Improvement - Musical Instruments	-0.36186851
248	Kitchen - Musical Instruments	-12.00571516
249	Lawn and Garden - Musical Instruments	-7.59855215
250	Luggage - Musical Instruments	5.86642450
251	Mobile_Apps - Musical Instruments	-7.08716719
252	Mobile_Electronics - Musical Instruments	0.23620071
253	Music - Musical Instruments	23.68083853
254	Apparel - Office Products	1.43001205
255	Automotive - Office Products	-0.72472512
256	Baby - Office Products	10.40852279
257	Beauty - Office Products	1.01736861
258	Books - Office Products	7.66476868
259	Camera - Office Products	3.86835017
260	Digital_Ebook_Purchase - Office Products	5.61237155
261	Digital_Music_Purchase - Office Products	21.04008667
262	Digital_Video_Download - Office Products	1.00028056
263	Electronics - Office Products	-4.03626415
264	Furniture - Office Products	-4.15462298
265	Grocery - Office Products	2.08787348
266	Health & Personal Care - Office Products	-6.17817460
267	Home - Office Products	5.49989694
268	Home Entertainment - Office Products	-6.55601209
269	Home Improvement - Office Products	1.65049267
270	Kitchen - Office Products	-8.70892954
271	Lawn and Garden - Office Products	-5.17778149
272	Luggage - Office Products	6.44113820
273	Mobile_Apps - Office Products	-1.08965697
274	Mobile_Electronics - Office Products	0.75264334
275	Music - Office Products	14.48186813



276	Musical Instruments - Office Products	2.23050666
277	Apparel - Outdoors	1.32058988
278	Automotive - Outdoors	-1.00108841
279	Baby - Outdoors	9.02513398
280	Beauty - Outdoors	0.94660798
281	Books - Outdoors	6.27521241
282	Camera - Outdoors	2.96143421
283	Digital_Ebook_Purchase - Outdoors	4.45262178
284	Digital_Music_Purchase - Outdoors	18.19506569
285	Digital_Video_Download - Outdoors	0.35890619
286	Electronics - Outdoors	-4.13366411
287	Furniture - Outdoors	-4.23383040
288	Grocery - Outdoors	2.04470126
289	Health & Personal Care - Outdoors	-6.26630372
290	Home - Outdoors	4.64361768
291	Home Entertainment - Outdoors	-6.38762624
292	Home Improvement - Outdoors	1.10630444
293	Kitchen - Outdoors	-8.65164566
294	Lawn and Garden - Outdoors	-5.29073397
295	Luggage - Outdoors	6.16132988
296	Mobile_Apps - Outdoors	-1.49661803
297	Mobile_Electronics - Outdoors	0.62462985
298	Music - Outdoors	12.32620794
299	Musical Instruments - Outdoors	1.53977833
300	Office Products - Outdoors	-0.39631604
301	Apparel - PC	0.96754964
302	Automotive - PC	-2.51295892
303	Baby - PC	15.07119880
304	Beauty - PC	0.70550718
305	Books - PC	23.10482245
306	Camera - PC	3.43068263
307	Digital_Ebook_Purchase - PC	13.60112607
308	Digital_Music_Purchase - PC	71.61259405
309	Digital_Video_Download - PC	-8.08405267
310	Electronics - PC	-16.11135415

311	Furniture - PC	-4.63522746
312	Grocery - PC	1.90073315
313	Health & Personal Care - PC	-8.74881424
314	Home - PC	5.29703170
315	Home Entertainment - PC	-24.90501408
316	Home Improvement - PC	-0.68858602
317	Kitchen - PC	-12.88776112
318	Lawn and Garden - PC	-8.13691002
319	Luggage - PC	5.85717621
320	Mobile_Apps - PC	-18.11085224
321	Mobile_Electronics - PC	0.18672909
322	Music - PC	55.34550480
323	Musical Instruments - PC	-0.43678204
324	Office Products - PC	-2.67957505
325	Outdoors - PC	-1.86701485
326	Apparel - Personal_Care_Appliances	1.90896514
327	Automotive - Personal_Care_Appliances	0.73478182
328	Baby - Personal_Care_Appliances	6.30252622
329	Beauty - Personal_Care_Appliances	1.38044859
330	Books - Personal_Care_Appliances	4.66366960
331	Camera - Personal_Care_Appliances	3.13375419
332	Digital_Ebook_Purchase - Personal_Care_Appliances	3.80624208
333	Digital_Music_Purchase - Personal_Care_Appliances	10.32131020
334	Digital_Video_Download - Personal_Care_Appliances	1.88161806
335	Electronics - Personal_Care_Appliances	-0.33543547
336	Furniture - Personal_Care_Appliances	-3.41526166
337	Grocery - Personal_Care_Appliances	2.30717876
338	Health & Personal Care - Personal_Care_Appliances	-2.92732233
339	Home - Personal_Care_Appliances	4.14200724
340	Home Entertainment - Personal_Care_Appliances	-1.39838119
341	Home Improvement - Personal_Care_Appliances	2.22911867
342	Kitchen - Personal_Care_Appliances	-3.96539575
343	Lawn and Garden - Personal_Care_Appliances	-1.98182184
344	Luggage - Personal_Care_Appliances	6.19124925
345	Mobile_Apps - Personal_Care_Appliances	1.00952035



346	Mobile_Electronics - Personal_Care_Appliances	1.35152935
347	Music - Personal_Care_Appliances	7.50813823
348	Musical Instruments - Personal_Care_Appliances	2.45219483
349	Office Products - Personal_Care_Appliances	1.35173076
350	Outdoors - Personal_Care_Appliances	1.55080163
351	PC - Personal_Care_Appliances	2.59536571
352	Apparel - Pet Products	0.35912838
353	Automotive - Pet Products	-0.63968724
354	Baby - Pet Products	0.85356764
355	Beauty - Pet Products	0.35381396
356	Books - Pet Products	0.36571606
357	Camera - Pet Products	-0.03807016
358	Digital_Ebook_Purchase - Pet Products	0.13496798
359	Digital_Music_Purchase - Pet Products	1.89273318
360	Digital_Video_Download - Pet Products	-0.38274312
361	Electronics - Pet Products	-0.97945927
362	Furniture - Pet Products	-2.83990933
363	Grocery - Pet Products	1.51111976
364	Health & Personal Care - Pet Products	-1.81853380
365	Home - Pet Products	0.27872760
366	Home Entertainment - Pet Products	-1.26774145
367	Home Improvement - Pet Products	-0.25338392
368	Kitchen - Pet Products	-2.08182015
369	Lawn and Garden - Pet Products	-1.49085684
370	Luggage - Pet Products	1.64931910
371	Mobile_Apps - Pet Products	-0.61740971
372	Mobile_Electronics - Pet Products	-0.07961473
373	Music - Pet Products	1.13088597
374	Musical Instruments - Pet Products	-0.21469953
375	Office Products - Pet Products	-0.49202383
376	Outdoors - Pet Products	-0.42478494
377	PC - Pet Products	-0.18832639
378	Personal_Care_Appliances - Pet Products	-0.85848543
379	Apparel - Shoes	0.99887606
380	Automotive - Shoes	-2.27397318

381	Baby - Shoes	11.68788467
382	Beauty - Shoes	0.72762678
383	Books - Shoes	9.00327364
384	Camera - Shoes	2.34288671
385	Digital_Ebook_Purchase - Shoes	5.40761588
386	Digital_Music_Purchase - Shoes	31.81689623
387	Digital_Video_Download - Shoes	-2.67996702
388	Electronics - Shoes	-9.97840788
389	Furniture - Shoes	-4.58740447
390	Grocery - Shoes	1.91358473
391	Health & Personal Care - Shoes	-8.23650405
392	Home - Shoes	4.60883642
393	Home Entertainment - Shoes	-14.37903045
394	Home Improvement - Shoes	-0.38503643
395	Kitchen - Shoes	-11.82623539
396	Lawn and Garden - Shoes	-7.51101349
397	Luggage - Shoes	5.83151303
398	Mobile_Apps - Shoes	-6.35504829
399	Mobile_Electronics - Shoes	0.22824107
400	Music - Shoes	20.96598938
401	Musical Instruments - Shoes	-0.04728945
402	Office Products - Shoes	-2.20288421
403	Outdoors - Shoes	-1.53457346
404	PC - Shoes	0.33401702
405	Personal_Care_Appliances - Shoes	-2.45282818
406	Pet Products - Shoes	0.21058697
407	Apparel - Software	2.26684797
408	Automotive - Software	1.41749678
409	Baby - Software	4.48198836
410	Beauty - Software	1.74726885
411	Books - Software	3.54042248
412	Camera - Software	2.72553698
413	Digital_Ebook_Purchase - Software	3.07901583
414	Digital_Music_Purchase - Software	6.59121870
415	Digital_Video_Download - Software	2.04358658

416	Electronics	- Software	0.84533456
417	Furniture	- Software	-2.39303864
418	Grocery	- Software	2.54094025
419	Health & Personal Care	- Software	-0.83451570
420	Home	- Software	3.32077050
421	Home Entertainment	- Software	0.27135369
422	Home Improvement	- Software	2.26137413
423	Kitchen	- Software	-1.34232164
424	Lawn and Garden	- Software	-0.20061179
425	Luggage	- Software	5.25297291
426	Mobile_Apps	- Software	1.57434928
427	Mobile_Electronics	- Software	1.81066405
428	Music	- Software	5.07072671
429	Musical Instruments	- Software	2.36413517
430	Office Products	- Software	1.77498461
431	Outdoors	- Software	1.89344074
432	PC	- Software	2.42993765
433	Personal_Care_Appliances	- Software	0.90822245
434	Pet Products	- Software	1.25634686
435	Shoes	- Software	2.36809335
436	Apparel	- Sports	2.60903923
437	Automotive	- Sports	3.00021841
438	Baby	- Sports	21.45965248
439	Beauty	- Sports	1.79165602
440	Books	- Sports	22.03461861
441	Camera	- Sports	14.72902569
442	Digital_Ebook_Purchase	- Sports	18.88380424
443	Digital_Music_Purchase	- Sports	41.95332473
444	Digital_Video_Download	- Sports	11.75375816
445	Electronics	- Sports	3.05925810
446	Furniture	- Sports	-3.14286985
447	Grocery	- Sports	2.55620689
448	Health & Personal Care	- Sports	-3.02697882
449	Home	- Sports	13.56299981
450	Home Entertainment	- Sports	-0.36432954

451	Home Improvement - Sports	8.33694832
452	Kitchen - Sports	-5.28236504
453	Lawn and Garden - Sports	-1.53660493
454	Luggage - Sports	8.86338888
455	Mobile_Apps - Sports	8.54602366
456	Mobile_Electronics - Sports	2.16202868
457	Music - Sports	32.56283331
458	Musical Instruments - Sports	11.13519202
459	Office Products - Sports	5.57055321
460	Outdoors - Sports	5.56561958
461	PC - Sports	13.80285385
462	Personal_Care_Appliances - Sports	1.25634711
463	Pet Products - Sports	1.23572958
464	Shoes - Sports	10.64698471
465	Software - Sports	-0.32789307
466	Apparel - Tools	0.38870324
467	Automotive - Tools	-4.13309195
468	Baby - Tools	6.45428295
469	Beauty - Tools	0.32532450
470	Books - Tools	2.28575247
471	Camera - Tools	-2.37609319
472	Digital_Ebook_Purchase - Tools	-0.50602172
473	Digital_Music_Purchase - Tools	20.36357318
474	Digital_Video_Download - Tools	-6.76700717
475	Electronics - Tools	-12.42381983
476	Furniture - Tools	-5.11723353
477	Grocery - Tools	1.67004544
478	Health & Personal Care - Tools	-9.85086460
479	Home - Tools	0.86813551
480	Home Entertainment - Tools	-16.02035765
481	Home Improvement - Tools	-3.46672472
482	Kitchen - Tools	-13.54538884
483	Lawn and Garden - Tools	-9.33645796
484	Luggage - Tools	4.61364436
485	Mobile_Apps - Tools	-9.61703714

486	Mobile_Electronics - Tools	-0.50056844
487	Music - Tools	11.54794315
488	Musical Instruments - Tools	-3.92094336
489	Office Products - Tools	-4.82855156
490	Outdoors - Tools	-4.01036291
491	PC - Tools	-4.26688826
492	Personal_Care_Appliances - Tools	-3.78867387
493	Pet Products - Tools	-0.17617320
494	Shoes - Tools	-3.72254527
495	Software - Tools	-3.12071649
496	Sports - Tools	-12.89606156
497	Apparel - Toys	-1.33143954
498	Automotive - Toys	-10.45961062
499	Baby - Toys	-6.03935067
500	Beauty - Toys	-0.80791852
501	Books - Toys	-41.36251580
502	Camera - Toys	-30.63880921
503	Digital_Ebook_Purchase - Toys	-52.47522649
504	Digital_Music_Purchase - Toys	22.82061037
505	Digital_Video_Download - Toys	-75.38720815
506	Electronics - Toys	-46.72104785
507	Furniture - Toys	-6.68620591
508	Grocery - Toys	0.98798108
509	Health & Personal Care - Toys	-16.44367216
510	Home - Toys	-11.26893131
511	Home Entertainment - Toys	-60.09775608
512	Home Improvement - Toys	-15.95801686
513	Kitchen - Toys	-22.74462018
514	Lawn and Garden - Toys	-17.14360864
515	Luggage - Toys	1.42005033
516	Mobile_Apps - Toys	-87.65340019
517	Mobile_Electronics - Toys	-2.57993048
518	Music - Toys	-6.38375437
519	Musical Instruments - Toys	-24.63994549
520	Office Products - Toys	-15.47209936

521	Outdoors - Toys	-13.25657215
522	PC - Toys	-46.87640132
523	Personal_Care_Appliances - Toys	-8.00074659
524	Pet Products - Toys	-1.26907835
525	Shoes - Toys	-22.07925812
526	Software - Toys	-5.34334284
527	Sports - Toys	-33.23654245
528	Tools - Toys	-12.85344980
529	Apparel - Video	0.63697136
530	Automotive - Video	-3.63293855
531	Baby - Video	11.61281175
532	Beauty - Video	0.48797252
533	Books - Video	11.23855566
534	Camera - Video	-1.23788375
535	Digital_Ebook_Purchase - Video	3.73398857
536	Digital_Music_Purchase - Video	53.81254195
537	Digital_Video_Download - Video	-13.14675638
538	Electronics - Video	-18.98710945
539	Furniture - Video	-4.92803260
540	Grocery - Video	1.76946207
541	Health & Personal Care - Video	-9.80170630
542	Home - Video	2.86090379
543	Home Entertainment - Video	-27.20889837
544	Home Improvement - Video	-2.81499462
545	Kitchen - Video	-14.17997567
546	Lawn and Garden - Video	-9.36179154
547	Luggage - Video	5.21075558
548	Mobile_Apps - Video	-20.97556310
549	Mobile_Electronics - Video	-0.21057292
550	Music - Video	36.32348756
551	Musical Instruments - Video	-3.69077081
552	Office Products - Video	-4.44767176
553	Outdoors - Video	-3.45967035
554	PC - Video	-5.53805476
555	Personal_Care_Appliances - Video	-3.36280406



556	Pet Products - Video	-0.02105663
557	Shoes - Video	-3.29576890
558	Software - Video	-2.84630285
559	Sports - Video	-16.05599250
560	Tools - Video	1.77571239
561	Toys - Video	34.19776883
562	Apparel - Video DVD	0.02640131
563	Automotive - Video DVD	-5.80398634
564	Baby - Video DVD	6.82504545
565	Beauty - Video DVD	0.08593509
566	Books - Video DVD	-5.20391029
567	Camera - Video DVD	-11.88711793
568	Digital_Ebook_Purchase - Video DVD	-36.09346667
569	Digital_Music_Purchase - Video DVD	80.87269933
570	Digital_Video_Download - Video DVD	-94.32810057
571	Electronics - Video DVD	-31.78849717
572	Furniture - Video DVD	-5.47740731
573	Grocery - Video DVD	1.52718673
574	Health & Personal Care - Video DVD	-11.97456185
575	Home - Video DVD	-1.50603977
576	Home Entertainment - Video DVD	-45.25098415
577	Home Improvement - Video DVD	-7.10374313
578	Kitchen - Video DVD	-17.10024314
579	Lawn and Garden - Video DVD	-11.92665747
580	Luggage - Video DVD	4.04984502
581	Mobile_Apps - Video DVD	-140.34453211
582	Mobile_Electronics - Video DVD	-0.94665135
583	Music - Video DVD	92.93325629
584	Musical Instruments - Video DVD	-10.98841350
585	Office Products - Video DVD	-8.05080805
586	Outdoors - Video DVD	-6.61653739
587	PC - Video DVD	-25.28471853
588	Personal_Care_Appliances - Video DVD	-4.82302033
589	Pet Products - Video DVD	-0.40842931
590	Shoes - Video DVD	-9.69129996

591	Software - Video DVD	-3.62596672
592	Sports - Video DVD	-22.65958790
593	Tools - Video DVD	-2.80611666
594	Toys - Video DVD	40.17259996
595	Video - Video DVD	-12.75393649
596	Apparel - Video Games	1.61459830
597	Automotive - Video Games	-0.26184128
598	Baby - Video Games	18.01907412
599	Beauty - Video Games	1.13270999
600	Books - Video Games	20.10960794
601	Camera - Video Games	9.31009420
602	Digital_Ebook_Purchase - Video Games	15.34205833
603	Digital_Music_Purchase - Video Games	49.09816604
604	Digital_Video_Download - Video Games	4.53524118
605	Electronics - Video Games	-5.88954780
606	Furniture - Video Games	-4.04807614
607	Grocery - Video Games	2.15829768
608	Health & Personal Care - Video Games	-6.42498981
609	Home - Video Games	9.01366225
610	Home Entertainment - Video Games	-11.10289296
611	Home Improvement - Video Games	3.31016085
612	Kitchen - Video Games	-9.73757568
613	Lawn and Garden - Video Games	-5.42169938
614	Luggage - Video Games	7.05647269
615	Mobile_Apps - Video Games	-0.34491741
616	Mobile_Electronics - Video Games	0.96650289
617	Music - Video Games	36.08271939
618	Musical Instruments - Video Games	5.22060814
619	Office Products - Video Games	0.86839529
620	Outdoors - Video Games	1.27928062
621	PC - Video Games	7.79544230
622	Personal_Care_Appliances - Video Games	-1.05477115
623	Pet Products - Video Games	0.60020923
624	Shoes - Video Games	4.90085228
625	Software - Video Games	-1.60025648



626	Sports - Video Games	-7.35390083
627	Tools - Video Games	8.17064253
628	Toys - Video Games	35.97709778
629	Video - Video Games	11.05432971
630	Video DVD - Video Games	21.08047115
631	Apparel - Watches	1.07454150
632	Automotive - Watches	-2.05956517
633	Baby - Watches	13.09370694
634	Beauty - Watches	0.77706387
635	Books - Watches	11.36821375
636	Camera - Watches	3.33591563
637	Digital_Ebook_Purchase - Watches	7.17619989
638	Digital_Music_Purchase - Watches	37.54864678
639	Digital_Video_Download - Watches	-2.26642746
640	Electronics - Watches	-10.36403953
641	Furniture - Watches	-4.52599941
642	Grocery - Watches	1.94357804
643	Health & Personal Care - Watches	-8.11143421
644	Home - Watches	5.31482488
645	Home Entertainment - Watches	-15.37298384
646	Home Improvement - Watches	0.03522605
647	Kitchen - Watches	-11.78442223
648	Lawn and Garden - Watches	-7.37335392
649	Luggage - Watches	6.00256681
650	Mobile_Apps - Watches	-6.55790050
651	Mobile_Electronics - Watches	0.31799453
652	Music - Watches	25.33747380
653	Musical Instruments - Watches	0.55073523
654	Office Products - Watches	-1.89968122
655	Outdoors - Watches	-1.23460674
656	PC - Watches	1.18119670
657	Personal_Care_Appliances - Watches	-2.29827280
658	Pet Products - Watches	0.25790178
659	Shoes - Watches	0.56373715
660	Software - Watches	-2.27920808

661	Sports - Watches	-10.80932526
662	Tools - Watches	4.40343415
663	Toys - Watches	26.17997776
664	Video - Watches	4.49159360
665	Video DVD - Watches	12.18277408
666	Video Games - Watches	-4.73377733
667	Apparel - Wireless	2.63090092
668	Automotive - Wireless	3.19473730
669	Baby - Wireless	27.88922551
670	Beauty - Wireless	1.80157293
671	Books - Wireless	42.29214357
672	Camera - Wireless	22.83134140
673	Digital_Ebook_Purchase - Wireless	36.35817415
674	Digital_Music_Purchase - Wireless	75.66218207
675	Digital_Video_Download - Wireless	22.61585023
676	Electronics - Wireless	4.61133809
677	Furniture - Wireless	-3.14640369
678	Grocery - Wireless	2.56187926
679	Health & Personal Care - Wireless	-3.14971178
680	Home - Wireless	16.36040997
681	Home Entertainment - Wireless	-0.45029286
682	Home Improvement - Wireless	9.85969299
683	Kitchen - Wireless	-5.66877183
684	Lawn and Garden - Wireless	-1.60541710
685	Luggage - Wireless	9.03713597
686	Mobile_Apps - Wireless	16.55713801
687	Mobile_Electronics - Wireless	2.18825657
688	Music - Wireless	62.53325420
689	Musical Instruments - Wireless	15.18120289
690	Office Products - Wireless	6.34221485
691	Outdoors - Wireless	6.19739926
692	PC - Wireless	23.98710107
693	Personal_Care_Appliances - Wireless	1.31076534
694	Pet Products - Wireless	1.24407904
695	Shoes - Wireless	13.98163699

696	Software - Wireless	-0.31847276
697	Sports - Wireless	0.07321017
698	Tools - Wireless	15.70157197
699	Toys - Wireless	58.57786921
700	Video - Wireless	26.36650671
701	Video DVD - Wireless	43.68562468
702	Video Games - Wireless	10.62355636
703	Watches - Wireless	14.91185320

	P.unadj	P.adj
1	1.029217e-01	1.000000e+00
2	4.994682e-01	1.000000e+00
3	7.609349e-15	5.349372e-12
4	9.543281e-01	1.000000e+00
5	2.441637e-01	1.000000e+00
6	7.059173e-01	1.000000e+00
7	9.252714e-01	1.000000e+00
8	2.571982e-08	1.808103e-05
9	8.548070e-14	6.009293e-11
10	8.963393e-01	1.000000e+00
11	4.655216e-01	1.000000e+00
12	1.004327e-03	7.060418e-01
13	1.392150e-32	9.786816e-30
14	5.828427e-01	1.000000e+00
15	1.233417e-26	8.670922e-24
16	6.470102e-01	1.000000e+00
17	1.675596e-05	1.177944e-02
18	4.241178e-28	2.981548e-25
19	7.114454e-01	1.000000e+00
20	1.412805e-155	9.932017e-153
21	4.345550e-06	3.054922e-03
22	2.058885e-02	1.000000e+00
23	8.012564e-44	5.632833e-41
24	4.195799e-53	2.949647e-50
25	1.455216e-01	1.000000e+00
26	0.000000e+00	0.000000e+00

27	0.000000e+00	0.000000e+00
28	0.000000e+00	0.000000e+00
29	2.023625e-01	1.000000e+00
30	1.426573e-01	1.000000e+00
31	2.408213e-79	1.692973e-76
32	3.641206e-01	1.000000e+00
33	0.000000e+00	0.000000e+00
34	8.424588e-20	5.922485e-17
35	0.000000e+00	0.000000e+00
36	0.000000e+00	0.000000e+00
37	2.691020e-02	1.000000e+00
38	7.816523e-02	1.000000e+00
39	3.166738e-121	2.226217e-118
40	1.268512e-01	1.000000e+00
41	1.588245e-206	1.116536e-203
42	5.371804e-61	3.776378e-58
43	3.680900e-143	2.587673e-140
44	0.000000e+00	0.000000e+00
45	3.766648e-42	2.647954e-39
46	4.031638e-05	2.834242e-02
47	1.121939e-04	7.887234e-02
48	1.195102e-09	8.401568e-07
49	8.951805e-04	6.293119e-01
50	6.053715e-08	4.255762e-05
51	1.282085e-06	9.013060e-04
52	3.532984e-07	2.483688e-04
53	3.896034e-14	2.738912e-11
54	1.277430e-05	8.980336e-03
55	4.371843e-04	3.073405e-01
56	1.586082e-01	1.000000e+00
57	2.955387e-02	1.000000e+00
58	2.126686e-01	1.000000e+00
59	2.064334e-01	1.000000e+00
60	1.202017e-01	1.000000e+00
61	7.086655e-02	1.000000e+00

62	8.942605e-02	1.000000e+00
63	5.501946e-01	1.000000e+00
64	4.311069e-02	1.000000e+00
65	1.657421e-02	1.000000e+00
66	2.920856e-04	2.053362e-01
67	5.773549e-04	4.058805e-01
68	4.740935e-06	3.332877e-03
69	7.014646e-42	4.931296e-39
70	1.700773e-02	1.000000e+00
71	7.475203e-32	5.255068e-29
72	4.143553e-21	2.912918e-18
73	6.711005e-26	4.717837e-23
74	6.037411e-87	4.244300e-84
75	7.346356e-15	5.164488e-12
76	6.898497e-06	4.849643e-03
77	2.631079e-02	1.000000e+00
78	3.482981e-03	1.000000e+00
79	8.200856e-01	1.000000e+00
80	3.842588e-06	2.701339e-03
81	8.399970e-08	5.905179e-05
82	8.268638e-01	1.000000e+00
83	3.149045e-01	1.000000e+00
84	6.385752e-04	4.489183e-01
85	9.041200e-02	1.000000e+00
86	1.471791e-76	1.034669e-73
87	9.813000e-15	6.898539e-12
88	1.390377e-39	9.774349e-37
89	1.450967e-07	1.020030e-04
90	1.083846e-01	1.000000e+00
91	7.636584e-25	5.368519e-22
92	7.622746e-03	1.000000e+00
93	8.855662e-04	6.225530e-01
94	8.172647e-177	5.745371e-174
95	6.782562e-02	1.000000e+00
96	0.000000e+00	0.000000e+00

97	2.106145e-122	1.480620e-119
98	0.000000e+00	0.000000e+00
99	0.000000e+00	0.000000e+00
100	2.141970e-124	1.505805e-121
101	3.999510e-07	2.811656e-04
102	1.849696e-03	1.000000e+00
103	9.974561e-03	1.000000e+00
104	2.452233e-03	1.000000e+00
105	2.138855e-62	1.503615e-59
106	2.886464e-01	1.000000e+00
107	5.327571e-02	1.000000e+00
108	1.776332e-22	1.248762e-19
109	4.408506e-01	1.000000e+00
110	3.153873e-11	2.217172e-08
111	3.106057e-02	1.000000e+00
112	3.027329e-05	2.128213e-02
113	1.686750e-113	1.185785e-110
114	1.697908e-01	1.000000e+00
115	1.649896e-12	1.159877e-09
116	6.604173e-06	4.642734e-03
117	5.249775e-02	1.000000e+00
118	3.255493e-14	2.288612e-11
119	2.352306e-05	1.653671e-02
120	4.295400e-24	3.019666e-21
121	1.009449e-04	7.096427e-02
122	5.291996e-10	3.720273e-07
123	9.934347e-76	6.983846e-73
124	7.712869e-03	1.000000e+00
125	2.337484e-63	1.643252e-60
126	2.389638e-42	1.679915e-39
127	2.032097e-52	1.428564e-49
128	7.569568e-161	5.321406e-158
129	1.134690e-31	7.976868e-29
130	2.157181e-13	1.516498e-10
131	5.723692e-02	1.000000e+00

132	2.017760e-03	1.000000e+00
133	2.887652e-01	1.000000e+00
134	9.256492e-45	6.507314e-42
135	3.392426e-08	2.384876e-05
136	2.045454e-26	1.437954e-23
137	3.076555e-03	1.000000e+00
138	4.050777e-04	2.847696e-01
139	2.620840e-42	1.842450e-39
140	4.038282e-02	1.000000e+00
141	2.111686e-31	1.484516e-28
142	4.707493e-19	3.309367e-16
143	1.532627e-24	1.077437e-21
144	2.850492e-98	2.003896e-95
145	2.467745e-12	1.734824e-09
146	1.471288e-03	1.000000e+00
147	6.742268e-03	1.000000e+00
148	6.630768e-03	1.000000e+00
149	1.693356e-01	1.000000e+00
150	8.084272e-23	5.683244e-20
151	1.432484e-01	1.000000e+00
152	1.415712e-11	9.952459e-09
153	6.360189e-03	1.000000e+00
154	6.622675e-02	1.000000e+00
155	1.985404e-10	1.395739e-07
156	8.426486e-03	1.000000e+00
157	2.211756e-01	1.000000e+00
158	2.917333e-05	2.050885e-02
159	7.513490e-08	5.281984e-05
160	1.038840e-06	7.303043e-04
161	6.314148e-01	1.000000e+00
162	1.023023e-10	7.191851e-08
163	2.087047e-16	1.467194e-13
164	2.554146e-11	1.795565e-08
165	4.953145e-01	1.000000e+00
166	2.408785e-21	1.693376e-18



167	1.710013e-05	1.202139e-02
168	8.141042e-20	5.723152e-17
169	5.164623e-09	3.630730e-06
170	1.091320e-26	7.671980e-24
171	5.984177e-19	4.206876e-16
172	9.993361e-02	1.000000e+00
173	8.572356e-01	1.000000e+00
174	6.605972e-112	4.643998e-109
175	2.496329e-01	1.000000e+00
176	0.000000e+00	0.000000e+00
177	1.638268e-53	1.151703e-50
178	0.000000e+00	0.000000e+00
179	0.000000e+00	0.000000e+00
180	6.290755e-163	4.422401e-160
181	1.050119e-16	7.382337e-14
182	5.488663e-05	3.858530e-02
183	3.003747e-02	1.000000e+00
184	6.302634e-11	4.430751e-08
185	9.009279e-26	6.333523e-23
186	6.542261e-69	4.599209e-66
187	1.009546e-04	7.097107e-02
188	4.621092e-24	3.248627e-21
189	2.879099e-08	2.024007e-05
190	6.966668e-13	4.897568e-10
191	5.317911e-01	1.000000e+00
192	3.146203e-01	1.000000e+00
193	7.475042e-02	1.000000e+00
194	5.964276e-01	1.000000e+00
195	3.867638e-01	1.000000e+00
196	9.216998e-01	1.000000e+00
197	6.692034e-01	1.000000e+00
198	1.669095e-04	1.173374e-01
199	5.781662e-01	1.000000e+00
200	9.188265e-02	1.000000e+00
201	1.242221e-04	8.732812e-02



202	8.066819e-02	1.000000e+00
203	1.642336e-03	1.000000e+00
204	4.881804e-01	1.000000e+00
205	2.553015e-02	1.000000e+00
206	7.583198e-01	1.000000e+00
207	2.285982e-04	1.607045e-01
208	9.890311e-03	1.000000e+00
209	3.240661e-03	1.000000e+00
210	3.164437e-01	1.000000e+00
211	2.654360e-01	1.000000e+00
212	1.619602e-22	1.138580e-19
213	2.647554e-05	1.861231e-02
214	5.064854e-01	1.000000e+00
215	0.000000e+00	0.000000e+00
216	5.632511e-211	3.959655e-208
217	0.000000e+00	0.000000e+00
218	0.000000e+00	0.000000e+00
219	0.000000e+00	0.000000e+00
220	0.000000e+00	0.000000e+00
221	8.357572e-11	5.875373e-08
222	2.824835e-01	1.000000e+00
223	3.025596e-56	2.126994e-53
224	2.442462e-23	1.717051e-20
225	0.000000e+00	0.000000e+00
226	8.540692e-50	6.004106e-47
227	2.228512e-107	1.566644e-104
228	1.502435e-60	1.056212e-57
229	6.501791e-02	1.000000e+00
230	0.000000e+00	0.000000e+00
231	2.040424e-02	1.000000e+00
232	3.142830e-01	1.000000e+00
233	2.262324e-02	1.000000e+00
234	2.797629e-35	1.966733e-32
235	4.640824e-01	1.000000e+00
236	1.841761e-24	1.294758e-21

237	8.940999e-03	1.000000e+00
238	7.225585e-10	5.079586e-07
239	1.540235e-277	1.082785e-274
240	3.217110e-03	1.000000e+00
241	6.656278e-27	4.679364e-24
242	4.525508e-06	3.181432e-03
243	5.531036e-02	1.000000e+00
244	9.768634e-17	6.867350e-14
245	1.331383e-06	9.359624e-04
246	4.541779e-55	3.192870e-52
247	7.174503e-01	1.000000e+00
248	3.315851e-33	2.331043e-30
249	2.994622e-14	2.105219e-11
250	4.452929e-09	3.130409e-06
251	1.368850e-12	9.623014e-10
252	8.132769e-01	1.000000e+00
253	5.681765e-124	3.994281e-121
254	1.527136e-01	1.000000e+00
255	4.686207e-01	1.000000e+00
256	2.267122e-25	1.593787e-22
257	3.089781e-01	1.000000e+00
258	1.791538e-14	1.259451e-11
259	1.095742e-04	7.703069e-02
260	1.995723e-08	1.402994e-05
261	2.818623e-98	1.981492e-95
262	3.171748e-01	1.000000e+00
263	5.430907e-05	3.817927e-02
264	3.258243e-05	2.290545e-02
265	3.680925e-02	1.000000e+00
266	6.484698e-10	4.558743e-07
267	3.800133e-08	2.671493e-05
268	5.526575e-11	3.885182e-08
269	9.884221e-02	1.000000e+00
270	3.067579e-18	2.156508e-15
271	2.245400e-07	1.578516e-04

272	1.185808e-10	8.336233e-08
273	2.758643e-01	1.000000e+00
274	4.516643e-01	1.000000e+00
275	1.577507e-47	1.108987e-44
276	2.571383e-02	1.000000e+00
277	1.866381e-01	1.000000e+00
278	3.167841e-01	1.000000e+00
279	1.794756e-19	1.261714e-16
280	3.438386e-01	1.000000e+00
281	3.491573e-10	2.454576e-07
282	3.062099e-03	1.000000e+00
283	8.482810e-06	5.963415e-03
284	5.647140e-74	3.969940e-71
285	7.196653e-01	1.000000e+00
286	3.570251e-05	2.509887e-02
287	2.297442e-05	1.615102e-02
288	4.088432e-02	1.000000e+00
289	3.697189e-10	2.599124e-07
290	3.423608e-06	2.406797e-03
291	1.684805e-10	1.184418e-07
292	2.685948e-01	1.000000e+00
293	5.076205e-18	3.568572e-15
294	1.218265e-07	8.564400e-05
295	7.213654e-10	5.071199e-07
296	1.344927e-01	1.000000e+00
297	5.322140e-01	1.000000e+00
298	6.545523e-35	4.601503e-32
299	1.236144e-01	1.000000e+00
300	6.918719e-01	1.000000e+00
301	3.332693e-01	1.000000e+00
302	1.197233e-02	1.000000e+00
303	2.505256e-51	1.761195e-48
304	4.804947e-01	1.000000e+00
305	4.140984e-118	2.911112e-115
306	6.020645e-04	4.232514e-01

307	3.943151e-42	2.772035e-39
308	0.000000e+00	0.000000e+00
309	6.264926e-16	4.404243e-13
310	2.123228e-58	1.492629e-55
311	3.565452e-06	2.506513e-03
312	5.733697e-02	1.000000e+00
313	2.156062e-18	1.515712e-15
314	1.177003e-07	8.274329e-05
315	6.565498e-137	4.615545e-134
316	4.910838e-01	1.000000e+00
317	5.275313e-38	3.708545e-35
318	4.054938e-16	2.850622e-13
319	4.708035e-09	3.309749e-06
320	2.616660e-73	1.839512e-70
321	8.518730e-01	1.000000e+00
322	0.000000e+00	0.000000e+00
323	6.622694e-01	1.000000e+00
324	7.371568e-03	1.000000e+00
325	6.189951e-02	1.000000e+00
326	5.626659e-02	1.000000e+00
327	4.624724e-01	1.000000e+00
328	2.928330e-10	2.058616e-07
329	1.674486e-01	1.000000e+00
330	3.106200e-06	2.183658e-03
331	1.725854e-03	1.000000e+00
332	1.410943e-04	9.918928e-02
333	5.644755e-25	3.968263e-22
334	5.988789e-02	1.000000e+00
335	7.372966e-01	1.000000e+00
336	6.372077e-04	4.479570e-01
337	2.104486e-02	1.000000e+00
338	3.418943e-03	1.000000e+00
339	3.442795e-05	2.420285e-02
340	1.619986e-01	1.000000e+00
341	2.580601e-02	1.000000e+00

342	7.327427e-05	5.151181e-02
343	4.749918e-02	1.000000e+00
344	5.968923e-10	4.196153e-07
345	3.127251e-01	1.000000e+00
346	1.765259e-01	1.000000e+00
347	5.997416e-14	4.216183e-11
348	1.419878e-02	1.000000e+00
349	1.764615e-01	1.000000e+00
350	1.209492e-01	1.000000e+00
351	9.449032e-03	1.000000e+00
352	7.194991e-01	1.000000e+00
353	5.223760e-01	1.000000e+00
354	3.933446e-01	1.000000e+00
355	7.234783e-01	1.000000e+00
356	7.145770e-01	1.000000e+00
357	9.696317e-01	1.000000e+00
358	8.926372e-01	1.000000e+00
359	5.839336e-02	1.000000e+00
360	7.019102e-01	1.000000e+00
361	3.273531e-01	1.000000e+00
362	4.512636e-03	1.000000e+00
363	1.307579e-01	1.000000e+00
364	6.898258e-02	1.000000e+00
365	7.804539e-01	1.000000e+00
366	2.048903e-01	1.000000e+00
367	7.999715e-01	1.000000e+00
368	3.735890e-02	1.000000e+00
369	1.359991e-01	1.000000e+00
370	9.908228e-02	1.000000e+00
371	5.369645e-01	1.000000e+00
372	9.365437e-01	1.000000e+00
373	2.581031e-01	1.000000e+00
374	8.300016e-01	1.000000e+00
375	6.227025e-01	1.000000e+00
376	6.709935e-01	1.000000e+00

377	8.506208e-01	1.000000e+00
378	3.906245e-01	1.000000e+00
379	3.178547e-01	1.000000e+00
380	2.296760e-02	1.000000e+00
381	1.470024e-31	1.033427e-28
382	4.668421e-01	1.000000e+00
383	2.190854e-19	1.540171e-16
384	1.913519e-02	1.000000e+00
385	6.386922e-08	4.490006e-05
386	3.779809e-222	2.657206e-219
387	7.362942e-03	1.000000e+00
388	1.894827e-23	1.332063e-20
389	4.487907e-06	3.154998e-03
390	5.567324e-02	1.000000e+00
391	1.773157e-16	1.246529e-13
392	4.049288e-06	2.846649e-03
393	7.006928e-47	4.925870e-44
394	7.002104e-01	1.000000e+00
395	2.856688e-32	2.008252e-29
396	5.867135e-14	4.124596e-11
397	5.492702e-09	3.861370e-06
398	2.083612e-10	1.464779e-07
399	8.194588e-01	1.000000e+00
400	1.341037e-97	9.427494e-95
401	9.622825e-01	1.000000e+00
402	2.760291e-02	1.000000e+00
403	1.248886e-01	1.000000e+00
404	7.383667e-01	1.000000e+00
405	1.417380e-02	1.000000e+00
406	8.332096e-01	1.000000e+00
407	2.339951e-02	1.000000e+00
408	1.563377e-01	1.000000e+00
409	7.395078e-06	5.198740e-03
410	8.059071e-02	1.000000e+00
411	3.994870e-04	2.808393e-01

412	6.419698e-03	1.000000e+00
413	2.076856e-03	1.000000e+00
414	4.362307e-11	3.066702e-08
415	4.099441e-02	1.000000e+00
416	3.979241e-01	1.000000e+00
417	1.670948e-02	1.000000e+00
418	1.105548e-02	1.000000e+00
419	4.039904e-01	1.000000e+00
420	8.976932e-04	6.310783e-01
421	7.861190e-01	1.000000e+00
422	2.373610e-02	1.000000e+00
423	1.794917e-01	1.000000e+00
424	8.410021e-01	1.000000e+00
425	1.496636e-07	1.052135e-04
426	1.154067e-01	1.000000e+00
427	7.019287e-02	1.000000e+00
428	3.962995e-07	2.785986e-04
429	1.807222e-02	1.000000e+00
430	7.590043e-02	1.000000e+00
431	5.829928e-02	1.000000e+00
432	1.510142e-02	1.000000e+00
433	3.637607e-01	1.000000e+00
434	2.089902e-01	1.000000e+00
435	1.788002e-02	1.000000e+00
436	9.079683e-03	1.000000e+00
437	2.697861e-03	1.000000e+00
438	3.710666e-102	2.608598e-99
439	7.318808e-02	1.000000e+00
440	1.341705e-107	9.432185e-105
441	4.197133e-49	2.950584e-46
442	1.550086e-79	1.089710e-76
443	0.000000e+00	0.000000e+00
444	6.754650e-32	4.748519e-29
445	2.218859e-03	1.000000e+00
446	1.673002e-03	1.000000e+00

447	1.058202e-02	1.000000e+00
448	2.470113e-03	1.000000e+00
449	6.636542e-42	4.665489e-39
450	7.156119e-01	1.000000e+00
451	7.623236e-17	5.359135e-14
452	1.275268e-07	8.965133e-05
453	1.243901e-01	1.000000e+00
454	7.761826e-19	5.456563e-16
455	1.274019e-17	8.956354e-15
456	3.061597e-02	1.000000e+00
457	1.378204e-232	9.688773e-230
458	8.456257e-29	5.944749e-26
459	2.539318e-08	1.785140e-05
460	2.612226e-08	1.836395e-05
461	2.449597e-43	1.722066e-40
462	2.089901e-01	1.000000e+00
463	2.165591e-01	1.000000e+00
464	1.801046e-26	1.266135e-23
465	7.429925e-01	1.000000e+00
466	6.974957e-01	1.000000e+00
467	3.579155e-05	2.516146e-02
468	1.087325e-10	7.643894e-08
469	7.449355e-01	1.000000e+00
470	2.226874e-02	1.000000e+00
471	1.749704e-02	1.000000e+00
472	6.128414e-01	1.000000e+00
473	3.519560e-92	2.474251e-89
474	1.314736e-11	9.242591e-09
475	1.940692e-35	1.364307e-32
476	3.100496e-07	2.179649e-04
477	9.491037e-02	1.000000e+00
478	6.795684e-23	4.777366e-20
479	3.853202e-01	1.000000e+00
480	9.211890e-58	6.475959e-55
481	5.268411e-04	3.703693e-01



482	8.436597e-42	5.930928e-39
483	9.961074e-21	7.002635e-18
484	3.956692e-06	2.781555e-03
485	6.775467e-22	4.763153e-19
486	6.166749e-01	1.000000e+00
487	7.560827e-31	5.315261e-28
488	8.820300e-05	6.200671e-02
489	1.375297e-06	9.668340e-04
490	6.062549e-05	4.261972e-02
491	1.982184e-05	1.393475e-02
492	1.514536e-04	1.064719e-01
493	8.601579e-01	1.000000e+00
494	1.972245e-04	1.386488e-01
495	1.804116e-03	1.000000e+00
496	4.736949e-38	3.330075e-35
497	1.830444e-01	1.000000e+00
498	1.323986e-25	9.307624e-23
499	1.547356e-09	1.087792e-06
500	4.191375e-01	1.000000e+00
501	0.000000e+00	0.000000e+00
502	3.725098e-206	2.618744e-203
503	0.000000e+00	0.000000e+00
504	2.862772e-115	2.012529e-112
505	0.000000e+00	0.000000e+00
506	0.000000e+00	0.000000e+00
507	2.290307e-11	1.610086e-08
508	3.231619e-01	1.000000e+00
509	9.310258e-61	6.545111e-58
510	1.868237e-29	1.313370e-26
511	0.000000e+00	0.000000e+00
512	2.505673e-57	1.761488e-54
513	1.622200e-114	1.140407e-111
514	7.015814e-66	4.932117e-63
515	1.555930e-01	1.000000e+00
516	0.000000e+00	0.000000e+00

```

517 9.882021e-03 1.000000e+00
518 1.727982e-10 1.214771e-07
519 4.716867e-134 3.315958e-131
520 5.353237e-54 3.763325e-51
521 4.133625e-40 2.905939e-37
522 0.000000e+00 0.000000e+00
523 1.236671e-15 8.693795e-13
524 2.044131e-01 1.000000e+00
525 5.002309e-108 3.516623e-105
526 9.124794e-08 6.414730e-05
527 3.194310e-242 2.245600e-239
528 8.225838e-38 5.782764e-35
529 5.241435e-01 1.000000e+00
530 2.802118e-04 1.969889e-01
531 3.547548e-31 2.493926e-28
532 6.255693e-01 1.000000e+00
533 2.636607e-29 1.853535e-26
534 2.157592e-01 1.000000e+00
535 1.884711e-04 1.324952e-01
536 0.000000e+00 0.000000e+00
537 1.776324e-39 1.248756e-36
538 2.180029e-80 1.532561e-77
539 8.306176e-07 5.839242e-04
540 7.681680e-02 1.000000e+00
541 1.106996e-22 7.782183e-20
542 4.224352e-03 1.000000e+00
543 5.096802e-163 3.583051e-160
544 4.877805e-03 1.000000e+00
545 1.218888e-45 8.568784e-43
546 7.839594e-21 5.511235e-18
547 1.880731e-07 1.322154e-04
548 1.096607e-97 7.709146e-95
549 8.332205e-01 1.000000e+00
550 6.890925e-289 4.844320e-286
551 2.235755e-04 1.571736e-01

```

552	8.680604e-06	6.102465e-03
553	5.408371e-04	3.802085e-01
554	3.058496e-08	2.150123e-05
555	7.715510e-04	5.424004e-01
556	9.832005e-01	1.000000e+00
557	9.815272e-04	6.900136e-01
558	4.423011e-03	1.000000e+00
559	5.190200e-58	3.648710e-55
560	7.578033e-02	1.000000e+00
561	2.609823e-256	1.834705e-253
562	9.789372e-01	1.000000e+00
563	6.475655e-09	4.552386e-06
564	8.789748e-12	6.179193e-09
565	9.315180e-01	1.000000e+00
566	1.951382e-07	1.371822e-04
567	1.380898e-32	9.707714e-30
568	2.871728e-285	2.018825e-282
569	0.000000e+00	0.000000e+00
570	0.000000e+00	0.000000e+00
571	9.334634e-222	6.562248e-219
572	4.316030e-08	3.034169e-05
573	1.267146e-01	1.000000e+00
574	4.829824e-33	3.395366e-30
575	1.320570e-01	1.000000e+00
576	0.000000e+00	0.000000e+00
577	1.214224e-12	8.535998e-10
578	1.477865e-65	1.038939e-62
579	8.595604e-33	6.042709e-30
580	5.125156e-05	3.602985e-02
581	0.000000e+00	0.000000e+00
582	3.438165e-01	1.000000e+00
583	0.000000e+00	0.000000e+00
584	4.344963e-28	3.054509e-25
585	8.224918e-16	5.782117e-13
586	3.677099e-11	2.585001e-08

587	4.704187e-141	3.307043e-138
588	1.414006e-06	9.940459e-04
589	6.829585e-01	1.000000e+00
590	3.283228e-22	2.308109e-19
591	2.878824e-04	2.023814e-01
592	1.122256e-113	7.889459e-111
593	5.014254e-03	1.000000e+00
594	0.000000e+00	0.000000e+00
595	2.963921e-37	2.083637e-34
596	1.063977e-01	1.000000e+00
597	7.934438e-01	1.000000e+00
598	1.380343e-72	9.703810e-70
599	2.573361e-01	1.000000e+00
600	6.080250e-90	4.274416e-87
601	1.277190e-20	8.978647e-18
602	4.002981e-53	2.814096e-50
603	0.000000e+00	0.000000e+00
604	5.753770e-06	4.044900e-03
605	3.872538e-09	2.722394e-06
606	5.164035e-05	3.630317e-02
607	3.090469e-02	1.000000e+00
608	1.318784e-10	9.271048e-08
609	1.992878e-19	1.400993e-16
610	1.214480e-28	8.537792e-26
611	9.324237e-04	6.554939e-01
612	2.084683e-22	1.465532e-19
613	5.903510e-08	4.150168e-05
614	1.707822e-12	1.200599e-09
615	7.301565e-01	1.000000e+00
616	3.337926e-01	1.000000e+00
617	4.233632e-285	2.976243e-282
618	1.783365e-07	1.253706e-04
619	3.851780e-01	1.000000e+00
620	2.007983e-01	1.000000e+00
621	6.418326e-15	4.512083e-12

622	2.915300e-01	1.000000e+00
623	5.483668e-01	1.000000e+00
624	9.542179e-07	6.708152e-04
625	1.095417e-01	1.000000e+00
626	1.925046e-13	1.353307e-10
627	3.067513e-16	2.156462e-13
628	1.908570e-283	1.341724e-280
629	2.088913e-28	1.468506e-25
630	1.201813e-98	8.448743e-96
631	2.825801e-01	1.000000e+00
632	3.944013e-02	1.000000e+00
633	3.577144e-39	2.514732e-36
634	4.371211e-01	1.000000e+00
635	6.020708e-30	4.232557e-27
636	8.501896e-04	5.976833e-01
637	7.167574e-13	5.038804e-10
638	0.000000e+00	0.000000e+00
639	2.342522e-02	1.000000e+00
640	3.613706e-25	2.540435e-22
641	6.011075e-06	4.225786e-03
642	5.194636e-02	1.000000e+00
643	5.002574e-16	3.516810e-13
644	1.067600e-07	7.505225e-05
645	2.484579e-53	1.746659e-50
646	9.718995e-01	1.000000e+00
647	4.696295e-32	3.301495e-29
648	1.663880e-13	1.169708e-10
649	1.942223e-09	1.365383e-06
650	5.457060e-11	3.836313e-08
651	7.504891e-01	1.000000e+00
652	1.235013e-141	8.682140e-139
653	5.818152e-01	1.000000e+00
654	5.747497e-02	1.000000e+00
655	2.169769e-01	1.000000e+00
656	2.375246e-01	1.000000e+00

657	2.154627e-02	1.000000e+00
658	7.964827e-01	1.000000e+00
659	5.729330e-01	1.000000e+00
660	2.265470e-02	1.000000e+00
661	3.109487e-27	2.185970e-24
662	1.065506e-05	7.490510e-03
663	4.492868e-151	3.158486e-148
664	7.069222e-06	4.969663e-03
665	3.839949e-34	2.699484e-31
666	2.203795e-06	1.549268e-03
667	8.515886e-03	1.000000e+00
668	1.399582e-03	9.839060e-01
669	3.604877e-171	2.534229e-168
670	7.161262e-02	1.000000e+00
671	0.000000e+00	0.000000e+00
672	2.239776e-115	1.574563e-112
673	1.951723e-289	1.372061e-286
674	0.000000e+00	0.000000e+00
675	3.026439e-113	2.127587e-110
676	4.000852e-06	2.812599e-03
677	1.652917e-03	1.000000e+00
678	1.041075e-02	1.000000e+00
679	1.634316e-03	1.000000e+00
680	3.666512e-60	2.577558e-57
681	6.524993e-01	1.000000e+00
682	6.223941e-23	4.375430e-20
683	1.438247e-08	1.011088e-05
684	1.084020e-01	1.000000e+00
685	1.608303e-19	1.130637e-16
686	1.421990e-61	9.996590e-59
687	2.865092e-02	1.000000e+00
688	0.000000e+00	0.000000e+00
689	4.710631e-52	3.311574e-49
690	2.264852e-10	1.592191e-07
691	5.740376e-10	4.035484e-07
692	3.791493e-127	2.665420e-124
693	1.899371e-01	1.000000e+00
694	2.134705e-01	1.000000e+00
695	2.017925e-44	1.418601e-41
696	7.501264e-01	1.000000e+00
697	9.416389e-01	1.000000e+00
698	1.475403e-55	1.037208e-52
699	0.000000e+00	0.000000e+00
700	3.319659e-153	2.333720e-150
701	0.000000e+00	0.000000e+00
702	2.315672e-26	1.627917e-23
703	2.759850e-50	1.940174e-47

```
> dunnTest(helpful_votes~product_category,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z
1	Apparel - Automotive	-0.28894938
2	Apparel - Baby	1.06539193
3	Automotive - Baby	4.48816763
4	Apparel - Beauty	0.28511542
5	Automotive - Beauty	0.52976785
6	Baby - Beauty	-0.36267949
7	Apparel - Books	-3.67074735
8	Automotive - Books	-11.70568622
9	Baby - Books	-45.79079894
10	Beauty - Books	-2.75702909
11	Apparel - Camera	-2.83100509
12	Automotive - Camera	-8.63284948
13	Baby - Camera	-32.93698431
14	Beauty - Camera	-2.20591032
15	Books - Camera	13.99812076
16	Apparel - Digital_Ebook_Purchase	2.39270136
17	Automotive - Digital_Ebook_Purchase	9.35641666
18	Baby - Digital_Ebook_Purchase	12.77838748
19	Beauty - Digital_Ebook_Purchase	1.23331983
20	Books - Digital_Ebook_Purchase	442.49377417
21	Camera - Digital_Ebook_Purchase	87.95604238
22	Apparel - Digital_Music_Purchase	-0.89556749
23	Automotive - Digital_Music_Purchase	-2.05908764
24	Baby - Digital_Music_Purchase	-18.42575864
25	Beauty - Digital_Music_Purchase	-0.93074288
26	Books - Digital_Music_Purchase	93.33420175
27	Camera - Digital_Music_Purchase	29.82769175
28	Digital_Ebook_Purchase - Digital_Music_Purchase	-112.19602669
29	Apparel - Digital_Video_Download	1.89120770
30	Automotive - Digital_Video_Download	7.61291278



31	Baby - Digital_Video_Download	7.91829072
32	Beauty - Digital_Video_Download	0.90330242
33	Books - Digital_Video_Download	374.98200588
34	Camera - Digital_Video_Download	79.15987972
35	Digital_Ebook_Purchase - Digital_Video_Download	-35.89036724
36	Digital_Music_Purchase - Digital_Video_Download	93.35226854
37	Apparel - Electronics	-2.91351250
38	Automotive - Electronics	-8.85701024
39	Baby - Electronics	-32.25826093
40	Beauty - Electronics	-2.26083899
41	Books - Electronics	10.83627680
42	Camera - Electronics	-0.93580439
43	Digital_Ebook_Purchase - Electronics	-76.90344915
44	Digital_Music_Purchase - Electronics	-27.37351688
45	Digital_Video_Download - Electronics	-69.41083905
46	Apparel - Furniture	-1.61878973
47	Automotive - Furniture	-1.84120071
48	Baby - Furniture	-3.11100335
49	Beauty - Furniture	-1.56251209
50	Books - Furniture	1.10465236
51	Camera - Furniture	0.35951890
52	Digital_Ebook_Purchase - Furniture	-4.30269840
53	Digital_Music_Purchase - Furniture	-1.36959710
54	Digital_Video_Download - Furniture	-3.85544929
55	Electronics - Furniture	0.43451452
56	Apparel - Grocery	0.68516482
57	Automotive - Grocery	0.85093231
58	Baby - Grocery	0.31185607
59	Beauty - Grocery	0.45499775
60	Books - Grocery	2.19389391
61	Camera - Grocery	1.86202482
62	Digital_Ebook_Purchase - Grocery	-0.21240870
63	Digital_Music_Purchase - Grocery	1.09260958
64	Digital_Video_Download - Grocery	-0.01340224
65	Electronics - Grocery	1.89534440



66		Furniture - Grocery	1.55528919
67		Apparel - Health & Personal Care	-2.04739444
68		Automotive - Health & Personal Care	-4.43402951
69		Baby - Health & Personal Care	-10.18372403
70		Beauty - Health & Personal Care	-1.71449395
71		Books - Health & Personal Care	5.15426294
72		Camera - Health & Personal Care	2.30682259
73	Digital_Ebook_Purchase	- Health & Personal Care	-15.21138726
74	Digital_Music_Purchase	- Health & Personal Care	-4.14927447
75	Digital_Video_Download	- Health & Personal Care	-13.52458805
76		Electronics - Health & Personal Care	2.56799109
77		Furniture - Health & Personal Care	0.25518265
78		Grocery - Health & Personal Care	-1.57390431
79		Apparel - Home	-2.50201540
80		Automotive - Home	-7.00076765
81		Baby - Home	-21.20948946
82		Beauty - Home	-1.99488318
83		Books - Home	8.49073916
84		Camera - Home	2.11939914
85		Digital_Ebook_Purchase - Home	-36.44642388
86		Digital_Music_Purchase - Home	-11.84686812
87		Digital_Video_Download - Home	-32.70060538
88		Electronics - Home	2.62015283
89		Furniture - Home	-0.08181002
90		Grocery - Home	-1.73651788
91		Health & Personal Care - Home	-1.18927796
92		Apparel - Home Entertainment	3.15092409
93		Automotive - Home Entertainment	11.77768485
94		Baby - Home Entertainment	17.63768601
95		Beauty - Home Entertainment	1.73446797
96		Books - Home Entertainment	115.97961577
97		Camera - Home Entertainment	72.60504685
98	Digital_Ebook_Purchase	- Home Entertainment	13.01549322
99	Digital_Music_Purchase	- Home Entertainment	63.00361213
100	Digital_Video_Download	- Home Entertainment	21.46498679

101	Electronics - Home Entertainment	67.72437715
102	Furniture - Home Entertainment	4.97699274
103	Grocery - Home Entertainment	0.51522482
104	Health & Personal Care - Home Entertainment	17.45571994
105	Home - Home Entertainment	38.75987536
106	Apparel - Home Improvement	-0.24362693
107	Automotive - Home Improvement	0.16843149
108	Baby - Home Improvement	-7.33610644
109	Beauty - Home Improvement	-0.50102431
110	Books - Home Improvement	23.23193362
111	Camera - Home Improvement	16.35323253
112	Digital_Ebook_Purchase - Home Improvement	-17.91258412
113	Digital_Music_Purchase - Home Improvement	4.34057873
114	Digital_Video_Download - Home Improvement	-14.49798897
115	Electronics - Home Improvement	16.48411524
116	Furniture - Home Improvement	1.93283462
117	Grocery - Home Improvement	-0.83344543
118	Health & Personal Care - Home Improvement	5.69336323
119	Home - Home Improvement	11.42795358
120	Home Entertainment - Home Improvement	-21.52627262
121	Apparel - Kitchen	-2.54158665
122	Automotive - Kitchen	-6.24791433
123	Baby - Kitchen	-14.51039088
124	Beauty - Kitchen	-2.03468272
125	Books - Kitchen	4.57837767
126	Camera - Kitchen	0.94933129
127	Digital_Ebook_Purchase - Kitchen	-21.56776027
128	Digital_Music_Purchase - Kitchen	-7.33928665
129	Digital_Video_Download - Kitchen	-19.39952063
130	Electronics - Kitchen	1.28869078
131	Furniture - Kitchen	-0.15435867
132	Grocery - Kitchen	-1.76502035
133	Health & Personal Care - Kitchen	-1.25352518
134	Home - Kitchen	-0.31474741
135	Home Entertainment - Kitchen	-24.13514042

136	Home Improvement - Kitchen	-8.60873453
137	Apparel - Lawn and Garden	-1.08489333
138	Automotive - Lawn and Garden	-2.13390198
139	Baby - Lawn and Garden	-7.99854253
140	Beauty - Lawn and Garden	-1.06316526
141	Books - Lawn and Garden	10.04914431
142	Camera - Lawn and Garden	6.59160852
143	Digital_Ebook_Purchase - Lawn and Garden	-13.83405197
144	Digital_Music_Purchase - Lawn and Garden	-0.87506352
145	Digital_Video_Download - Lawn and Garden	-11.85573864
146	Electronics - Lawn and Garden	6.85355644
147	Furniture - Lawn and Garden	1.14197640
148	Grocery - Lawn and Garden	-1.17536795
149	Health & Personal Care - Lawn and Garden	2.60024789
150	Home - Lawn and Garden	4.89295583
151	Home Entertainment - Lawn and Garden	-16.42862077
152	Home Improvement - Lawn and Garden	-2.97708351
153	Kitchen - Lawn and Garden	4.33533415
154	Apparel - Luggage	-0.69323638
155	Automotive - Luggage	-0.81075084
156	Baby - Luggage	-3.51158267
157	Beauty - Luggage	-0.80932661
158	Books - Luggage	5.58899591
159	Camera - Luggage	3.94973514
160	Digital_Ebook_Purchase - Luggage	-6.13592261
161	Digital_Music_Purchase - Luggage	0.22302328
162	Digital_Video_Download - Luggage	-5.16591547
163	Electronics - Luggage	4.10263910
164	Furniture - Luggage	1.33764666
165	Grocery - Luggage	-1.02548010
166	Health & Personal Care - Luggage	2.27238519
167	Home - Luggage	3.26429655
168	Home Entertainment - Luggage	-7.56588342
169	Home Improvement - Luggage	-0.99367612
170	Kitchen - Luggage	3.22699395

171	Lawn and Garden - Luggage	0.58829405
172	Apparel - Mobile_Apps	0.82717901
173	Automotive - Mobile_Apps	3.91819899
174	Baby - Mobile_Apps	-2.35830411
175	Beauty - Mobile_Apps	0.20305295
176	Books - Mobile_Apps	337.25557605
177	Camera - Mobile_Apps	61.70643969
178	Digital_Ebook_Purchase - Mobile_Apps	-126.53137496
179	Digital_Music_Purchase - Mobile_Apps	59.12675394
180	Digital_Video_Download - Mobile_Apps	-78.16359092
181	Electronics - Mobile_Apps	54.29910522
182	Furniture - Mobile_Apps	2.90658949
183	Grocery - Mobile_Apps	-0.40887317
184	Health & Personal Care - Mobile_Apps	9.95357361
185	Home - Mobile_Apps	24.84941502
186	Home Entertainment - Mobile_Apps	-39.76463871
187	Home Improvement - Mobile_Apps	7.28776640
188	Kitchen - Mobile_Apps	14.81821088
189	Lawn and Garden - Mobile_Apps	7.66776739
190	Luggage - Mobile_Apps	3.10867032
191	Apparel - Mobile_Electronics	-5.07372383
192	Automotive - Mobile_Electronics	-7.16052333
193	Baby - Mobile_Electronics	-9.15871184
194	Beauty - Mobile_Electronics	-4.10827231
195	Books - Mobile_Electronics	-3.52084904
196	Camera - Mobile_Electronics	-4.51497185
197	Digital_Ebook_Purchase - Mobile_Electronics	-10.81921841
198	Digital_Music_Purchase - Mobile_Electronics	-6.85747135
199	Digital_Video_Download - Mobile_Electronics	-10.21539525
200	Electronics - Mobile_Electronics	-4.40963619
201	Furniture - Mobile_Electronics	-2.98376118
202	Grocery - Mobile_Electronics	-3.18609941
203	Health & Personal Care - Mobile_Electronics	-5.05405599
204	Home - Mobile_Electronics	-4.83785631
205	Home Entertainment - Mobile_Electronics	-11.71029463

206	Home Improvement - Mobile_Electronics	-7.52632963
207	Kitchen - Mobile_Electronics	-4.62295682
208	Lawn and Garden - Mobile_Electronics	-6.30504561
209	Luggage - Mobile_Electronics	-5.94324175
210	Mobile_Apps - Mobile_Electronics	-8.93494139
211	Apparel - Music	-6.83240841
212	Automotive - Music	-22.68956756
213	Baby - Music	-76.38380879
214	Beauty - Music	-4.83770078
215	Books - Music	-226.22265483
216	Camera - Music	-67.16216483
217	Digital_Ebook_Purchase - Music	-706.43498641
218	Digital_Music_Purchase - Music	-201.65242052
219	Digital_Video_Download - Music	-612.62955014
220	Electronics - Music	-56.58375547
221	Furniture - Music	-3.92417064
222	Grocery - Music	-3.44859831
223	Health & Personal Care - Music	-15.77379277
224	Home - Music	-31.92415401
225	Home Entertainment - Music	-170.11554054
226	Home Improvement - Music	-44.69801220
227	Kitchen - Music	-18.21188518
228	Lawn and Garden - Music	-22.50399882
229	Luggage - Music	-11.70285933
230	Mobile_Apps - Music	-604.35175455
231	Mobile_Electronics - Music	-0.28458605
232	Apparel - Musical Instruments	-3.50835835
233	Automotive - Musical Instruments	-10.69450965
234	Baby - Musical Instruments	-33.70410187
235	Beauty - Musical Instruments	-2.65469536
236	Books - Musical Instruments	1.65565913
237	Camera - Musical Instruments	-6.42650941
238	Digital_Ebook_Purchase - Musical Instruments	-65.98068114
239	Digital_Music_Purchase - Musical Instruments	-28.10421745
240	Digital_Video_Download - Musical Instruments	-60.26604329

241	Electronics - Musical Instruments	-5.35256979
242	Furniture - Musical Instruments	-0.96906910
243	Grocery - Musical Instruments	-2.13358364
244	Health & Personal Care - Musical Instruments	-4.46174644
245	Home - Musical Instruments	-6.17827448
246	Home Entertainment - Musical Instruments	-62.78655019
247	Home Improvement - Musical Instruments	-19.04809568
248	Kitchen - Musical Instruments	-3.67834566
249	Lawn and Garden - Musical Instruments	-8.93542231
250	Luggage - Musical Instruments	-5.22544239
251	Mobile_Apps - Musical Instruments	-48.54697981
252	Mobile_Electronics - Musical Instruments	3.67891267
253	Music - Musical Instruments	36.90930560
254	Apparel - Office Products	-2.72223179
255	Automotive - Office Products	-7.29425457
256	Baby - Office Products	-18.73299871
257	Beauty - Office Products	-2.14608944
258	Books - Office Products	5.11445298
259	Camera - Office Products	0.38285610
260	Digital_Ebook_Purchase - Office Products	-29.11114874
261	Digital_Music_Purchase - Office Products	-10.43247184
262	Digital_Video_Download - Office Products	-26.26696709
263	Electronics - Office Products	0.82133270
264	Furniture - Office Products	-0.29273872
265	Grocery - Office Products	-1.82970177
266	Health & Personal Care - Office Products	-1.81497483
267	Home - Office Products	-1.07919867
268	Home Entertainment - Office Products	-31.80118945
269	Home Improvement - Office Products	-10.94604937
270	Kitchen - Office Products	-0.53360988
271	Lawn and Garden - Office Products	-5.31907867
272	Luggage - Office Products	-3.63046715
273	Mobile_Apps - Office Products	-20.27715712
274	Mobile_Electronics - Office Products	4.51100158
275	Music - Office Products	22.96075746



276	Musical Instruments - Office Products	3.82444504
277	Apparel - Outdoors	-0.25631767
278	Automotive - Outdoors	0.11229707
279	Baby - Outdoors	-5.93687813
280	Beauty - Outdoors	-0.50895002
281	Books - Outdoors	17.07869143
282	Camera - Outdoors	12.38640338
283	Digital_Ebook_Purchase - Outdoors	-13.29891191
284	Digital_Music_Purchase - Outdoors	3.15205815
285	Digital_Video_Download - Outdoors	-10.78182056
286	Electronics - Outdoors	12.61307783
287	Furniture - Outdoors	1.90601209
288	Grocery - Outdoors	-0.83824215
289	Health & Personal Care - Outdoors	5.23374832
290	Home - Outdoors	9.40792572
291	Home Entertainment - Outdoors	-16.46026522
292	Home Improvement - Outdoors	-0.06101335
293	Kitchen - Outdoors	7.67946417
294	Lawn and Garden - Outdoors	2.65872968
295	Luggage - Outdoors	0.93663331
296	Mobile_Apps - Outdoors	-5.45505982
297	Mobile_Electronics - Outdoors	7.41461062
298	Music - Outdoors	32.92321808
299	Musical Instruments - Outdoors	14.92995971
300	Office Products - Outdoors	9.39061319
301	Apparel - PC	0.24715556
302	Automotive - PC	1.88944778
303	Baby - PC	-7.53712741
304	Beauty - PC	-0.17850689
305	Books - PC	103.53587562
306	Camera - PC	44.60313139
307	Digital_Ebook_Purchase - PC	-57.18919927
308	Digital_Music_Purchase - PC	24.92593807
309	Digital_Video_Download - PC	-43.32832677
310	Electronics - PC	40.83435580

311	Furniture	- PC	2.38827844
312	Grocery	- PC	-0.63893081
313	Health & Personal Care	- PC	7.94973029
314	Home	- PC	19.87650532
315	Home Entertainment	- PC	-42.49966981
316	Home Improvement	- PC	3.25800229
317	Kitchen	- PC	12.17626750
318	Lawn and Garden	- PC	5.33176271
319	Luggage	- PC	1.98270030
320	Mobile_Apps	- PC	-15.51198271
321	Mobile_Electronics	- PC	8.22950942
322	Music	- PC	188.21876930
323	Musical Instruments	- PC	39.12831575
324	Office Products	- PC	16.67336220
325	Outdoors	- PC	2.50988905
326	Apparel	- Personal_Care_Appliances	-2.15478589
327	Automotive	- Personal_Care_Appliances	-3.97872158
328	Baby	- Personal_Care_Appliances	-7.81176596
329	Beauty	- Personal_Care_Appliances	-1.81240620
330	Books	- Personal_Care_Appliances	3.13292921
331	Camera	- Personal_Care_Appliances	1.15536696
332	Digital_Ebook_Purchase	- Personal_Care_Appliances	-11.15037196
333	Digital_Music_Purchase	- Personal_Care_Appliances	-3.39704685
334	Digital_Video_Download	- Personal_Care_Appliances	-9.96820478
335	Electronics	- Personal_Care_Appliances	1.34792104
336	Furniture	- Personal_Care_Appliances	0.07619013
337	Grocery	- Personal_Care_Appliances	-1.64293507
338	Health & Personal Care	- Personal_Care_Appliances	-0.39490054
339	Home	- Personal_Care_Appliances	0.41266626
340	Home Entertainment	- Personal_Care_Appliances	-12.83248511
341	Home Improvement	- Personal_Care_Appliances	-4.66310133
342	Kitchen	- Personal_Care_Appliances	0.55441278
343	Lawn and Garden	- Personal_Care_Appliances	-2.47041506
344	Luggage	- Personal_Care_Appliances	-2.33258272
345	Mobile_Apps	- Personal_Care_Appliances	-7.46273251



346	Mobile_Electronics - Personal_Care_Appliances	4.56135597
347	Music - Personal_Care_Appliances	10.58066777
348	Musical Instruments - Personal_Care_Appliances	2.72410359
349	Office Products - Personal_Care_Appliances	0.92136722
350	Outdoors - Personal_Care_Appliances	-4.43454972
351	PC - Personal_Care_Appliances	-6.07562306
352	Apparel - Pet Products	-3.61248376
353	Automotive - Pet Products	-4.01993785
354	Baby - Pet Products	-4.94493366
355	Beauty - Pet Products	-3.31739889
356	Books - Pet Products	-1.95043650
357	Camera - Pet Products	-2.47793458
358	Digital_Ebook_Purchase - Pet Products	-5.79297194
359	Digital_Music_Purchase - Pet Products	-3.70843160
360	Digital_Video_Download - Pet Products	-5.47515189
361	Electronics - Pet Products	-2.42385259
362	Furniture - Pet Products	-2.22983010
363	Grocery - Pet Products	-2.89461634
364	Health & Personal Care - Pet Products	-2.87245254
365	Home - Pet Products	-2.66723663
366	Home Entertainment - Pet Products	-6.27261182
367	Home Improvement - Pet Products	-4.10292922
368	Kitchen - Pet Products	-2.59563361
369	Lawn and Garden - Pet Products	-3.52224127
370	Luggage - Pet Products	-3.59416381
371	Mobile_Apps - Pet Products	-4.80088428
372	Mobile_Electronics - Pet Products	-0.08556882
373	Music - Pet Products	0.05313247
374	Musical Instruments - Pet Products	-2.04142341
375	Office Products - Pet Products	-2.50916073
376	Outdoors - Pet Products	-4.07870253
377	PC - Pet Products	-4.43229804
378	Personal_Care_Appliances - Pet Products	-2.69749917
379	Apparel - Shoes	0.87623723
380	Automotive - Shoes	3.87576578

381	Baby - Shoes	-1.32224764
382	Beauty - Shoes	0.23770918
383	Books - Shoes	45.02659498
384	Camera - Shoes	31.91057870
385	Digital_Ebook_Purchase - Shoes	-14.97701791
386	Digital_Music_Purchase - Shoes	17.02430164
387	Digital_Video_Download - Shoes	-9.99427933
388	Electronics - Shoes	31.23978746
389	Furniture - Shoes	2.94252780
390	Grocery - Shoes	-0.38735704
391	Health & Personal Care - Shoes	9.60372918
392	Home - Shoes	20.26555252
393	Home Entertainment - Shoes	-19.60586867
394	Home Improvement - Shoes	6.32566437
395	Kitchen - Shoes	13.81412201
396	Lawn and Garden - Shoes	7.32806951
397	Luggage - Shoes	3.15337271
398	Mobile_Apps - Shoes	0.52963144
399	Mobile_Electronics - Shoes	8.93452708
400	Music - Shoes	76.36880173
401	Musical Instruments - Shoes	32.75608035
402	Office Products - Shoes	17.91152244
403	Outdoors - Shoes	5.11433198
404	PC - Shoes	5.92183623
405	Personal_Care_Appliances - Shoes	7.38567621
406	Pet Products - Shoes	4.82503625
407	Apparel - Software	-6.66557898
408	Automotive - Software	-9.75167950
409	Baby - Software	-12.01632247
410	Beauty - Software	-5.26177006
411	Books - Software	-6.10786649
412	Camera - Software	-7.14694539
413	Digital_Ebook_Purchase - Software	-13.79266235
414	Digital_Music_Purchase - Software	-9.61944632
415	Digital_Video_Download - Software	-13.15678368

416	Electronics	- Software	-7.03324880
417	Furniture	- Software	-4.41855793
418	Grocery	- Software	-3.91891012
419	Health & Personal Care	- Software	-7.53542618
420	Home	- Software	-7.45357323
421	Home Entertainment	- Software	-14.72145343
422	Home Improvement	- Software	-10.27196541
423	Kitchen	- Software	-7.15228294
424	Lawn and Garden	- Software	-8.89389169
425	Luggage	- Software	-8.17311223
426	Mobile_Apps	- Software	-11.80865920
427	Mobile_Electronics	- Software	-1.65331607
428	Music	- Software	-2.10101452
429	Musical Instruments	- Software	-6.25694390
430	Office Products	- Software	-7.08134320
431	Outdoors	- Software	-10.11185981
432	PC	- Software	-11.06261300
433	Personal_Care_Appliances	- Software	-6.86407476
434	Pet Products	- Software	-0.98719344
435	Shoes	- Software	-11.78177574
436	Apparel	- Sports	-4.89061899
437	Automotive	- Sports	-14.92552400
438	Baby	- Sports	-38.91713512
439	Beauty	- Sports	-3.57063739
440	Books	- Sports	-10.89088882
441	Camera	- Sports	-16.21847915
442	Digital_Ebook_Purchase	- Sports	-63.71447326
443	Digital_Music_Purchase	- Sports	-34.17979570
444	Digital_Video_Download	- Sports	-59.27425964
445	Electronics	- Sports	-15.01032813
446	Furniture	- Sports	-2.20938114
447	Grocery	- Sports	-2.68782653
448	Health & Personal Care	- Sports	-8.73900058
449	Home	- Sports	-13.57080033
450	Home Entertainment	- Sports	-62.97002580

451	Home Improvement - Sports	-25.09457665
452	Kitchen - Sports	-8.95159924
453	Lawn and Garden - Sports	-13.66445929
454	Luggage - Sports	-7.82132395
455	Mobile_Apps - Sports	-50.09746934
456	Mobile_Electronics - Sports	1.99574700
457	Music - Sports	16.63216978
458	Musical Instruments - Sports	-9.64981991
459	Office Products - Sports	-10.24104442
460	Outdoors - Sports	-20.27552474
461	PC - Sports	-43.04221263
462	Personal_Care_Appliances - Sports	-5.87295143
463	Pet Products - Sports	1.15430258
464	Shoes - Sports	-38.08912099
465	Software - Sports	4.47525822
466	Apparel - Tools	2.26183778
467	Automotive - Tools	8.17583068
468	Baby - Tools	7.29187116
469	Beauty - Tools	1.15546808
470	Books - Tools	45.62550208
471	Camera - Tools	35.85692474
472	Digital_Ebook_Purchase - Tools	-0.85855543
473	Digital_Music_Purchase - Tools	23.88603999
474	Digital_Video_Download - Tools	2.98569032
475	Electronics - Tools	35.38778257
476	Furniture - Tools	4.17505184
477	Grocery - Tools	0.16777409
478	Health & Personal Care - Tools	13.60052730
479	Home - Tools	25.67422529
480	Home Entertainment - Tools	-6.14821100
481	Home Improvement - Tools	12.87356518
482	Kitchen - Tools	18.40169472
483	Lawn and Garden - Tools	11.92632346
484	Luggage - Tools	5.74162463
485	Mobile_Apps - Tools	11.15494962

486	Mobile_Electronics - Tools	10.55660729
487	Music - Tools	69.89842540
488	Musical Instruments - Tools	36.80108120
489	Office Products - Tools	22.97763545
490	Outdoors - Tools	10.68015467
491	PC - Tools	15.05859687
492	Personal_Care_Appliances - Tools	10.41148022
493	Pet Products - Tools	5.70281433
494	Shoes - Tools	8.51786733
495	Software - Tools	13.46999999
496	Sports - Tools	41.58095008
497	Apparel - Toys	-0.72775174
498	Automotive - Toys	-1.47604357
499	Baby - Toys	-16.63337166
500	Beauty - Toys	-0.82030095
501	Books - Toys	85.36104649
502	Camera - Toys	31.30021567
503	Digital_Ebook_Purchase - Toys	-91.48786869
504	Digital_Music_Purchase - Toys	3.89015899
505	Digital_Video_Download - Toys	-75.74515781
506	Electronics - Toys	28.84982998
507	Furniture - Toys	1.51898159
508	Grocery - Toys	-1.02601147
509	Health & Personal Care - Toys	4.70255970
510	Home - Toys	12.96321083
511	Home Entertainment - Toys	-58.28777739
512	Home Improvement - Toys	-3.19800759
513	Kitchen - Toys	8.03565729
514	Lawn and Garden - Toys	1.52880253
515	Luggage - Toys	0.10090763
516	Mobile_Apps - Toys	-45.78905492
517	Mobile_Electronics - Toys	7.05774260
518	Music - Toys	178.37249843
519	Musical Instruments - Toys	29.39147261
520	Office Products - Toys	11.31556779

521	Outdoors - Toys	-2.31002012
522	PC - Toys	-19.87795990
523	Personal_Care_Appliances - Toys	3.78829221
524	Pet Products - Toys	3.81449775
525	Shoes - Toys	-15.20549346
526	Software - Toys	9.82954476
527	Sports - Toys	35.21962803
528	Tools - Toys	-22.43233108
529	Apparel - Video	-9.83918699
530	Automotive - Video	-32.74956714
531	Baby - Video	-96.32946603
532	Beauty - Video	-6.82023145
533	Books - Video	-127.68518479
534	Camera - Video	-93.00354379
535	Digital_Ebook_Purchase - Video	-254.33369981
536	Digital_Music_Purchase - Video	-163.11708615
537	Digital_Video_Download - Video	-242.23652255
538	Electronics - Video	-83.26013065
539	Furniture - Video	-6.60936002
540	Grocery - Video	-4.64525009
541	Health & Personal Care - Video	-25.60007724
542	Home - Video	-51.34247484
543	Home Entertainment - Video	-173.89016410
544	Home Improvement - Video	-62.17459493
545	Kitchen - Video	-30.61747648
546	Lawn and Garden - Video	-33.83041130
547	Luggage - Video	-17.46755514
548	Mobile_Apps - Video	-222.28564809
549	Mobile_Electronics - Video	-3.91030785
550	Music - Video	-62.58249764
551	Musical Instruments - Video	-62.68278126
552	Office Products - Video	-38.69025682
553	Outdoors - Video	-46.79681276
554	PC - Video	-169.19567957
555	Personal_Care_Appliances - Video	-17.58394038



556	Pet Products - Video	-1.96441855
557	Shoes - Video	-96.56849207
558	Software - Video	-1.72008291
559	Sports - Video	-39.78994989
560	Tools - Video	-87.67061958
561	Toys - Video	-158.36452431
562	Apparel - Video DVD	-4.94265874
563	Automotive - Video DVD	-16.12752578
564	Baby - Video DVD	-58.19435962
565	Beauty - Video DVD	-3.59403726
566	Books - Video DVD	-98.20206908
567	Camera - Video DVD	-35.54323264
568	Digital_Ebook_Purchase - Video DVD	-613.54668634
569	Digital_Music_Purchase - Video DVD	-139.70092722
570	Digital_Video_Download - Video DVD	-516.33145150
571	Electronics - Video DVD	-29.33532793
572	Furniture - Video DVD	-2.23887381
573	Grocery - Video DVD	-2.69862470
574	Health & Personal Care - Video DVD	-9.42789085
575	Home - Video DVD	-17.93316700
576	Home Entertainment - Video DVD	-138.48504510
577	Home Improvement - Video DVD	-31.89276297
578	Kitchen - Video DVD	-10.06567600
579	Lawn and Garden - Video DVD	-15.06331949
580	Luggage - Video DVD	-8.04890960
581	Mobile_Apps - Video DVD	-500.23132276
582	Mobile_Electronics - Video DVD	1.99012333
583	Music - Video DVD	154.05391651
584	Musical Instruments - Video DVD	-15.86524890
585	Office Products - Video DVD	-12.29963604
586	Outdoors - Video DVD	-23.46272023
587	PC - Video DVD	-139.34226356
588	Personal_Care_Appliances - Video DVD	-6.12944955
589	Pet Products - Video DVD	1.14448203
590	Shoes - Video DVD	-57.73533695

591	Software - Video DVD	4.49620203
592	Sports - Video DVD	-0.17659395
593	Tools - Video DVD	-55.44849145
594	Toys - Video DVD	-124.62741338
595	Video - Video DVD	102.38873074
596	Apparel - Video Games	-0.25688149
597	Automotive - Video Games	0.14481890
598	Baby - Video Games	-10.41787882
599	Beauty - Video Games	-0.51021636
600	Books - Video Games	45.00007058
601	Camera - Video Games	27.02832440
602	Digital_Ebook_Purchase - Video Games	-35.01741472
603	Digital_Music_Purchase - Video Games	7.96338773
604	Digital_Video_Download - Video Games	-28.31220150
605	Electronics - Video Games	26.18726334
606	Furniture - Video Games	1.93491393
607	Grocery - Video Games	-0.83899796
608	Health & Personal Care - Video Games	6.12022762
609	Home - Video Games	14.70411138
610	Home Entertainment - Video Games	-35.97277086
611	Home Improvement - Video Games	-0.06878249
612	Kitchen - Video Games	9.65193066
613	Lawn and Garden - Video Games	3.25639130
614	Luggage - Video Games	1.00059928
615	Mobile_Apps - Video Games	-14.34507643
616	Mobile_Electronics - Video Games	7.59862557
617	Music - Video Games	86.81378032
618	Musical Instruments - Video Games	27.99172021
619	Office Products - Video Games	13.04139969
620	Outdoors - Video Games	0.01763071
621	PC - Video Games	-6.04663105
622	Personal_Care_Appliances - Video Games	4.83311885
623	Pet Products - Video Games	4.10885082
624	Shoes - Video Games	-9.06716373
625	Software - Video Games	10.38743955



626	Sports - Video Games	34.06967211
627	Tools - Video Games	-16.90148754
628	Toys - Video Games	5.73597691
629	Video - Video Games	108.04171838
630	Video DVD - Video Games	62.00998446
631	Apparel - Watches	-3.31630595
632	Automotive - Watches	-10.08246508
633	Baby - Watches	-32.77937510
634	Beauty - Watches	-2.52772402
635	Books - Watches	3.95286169
636	Camera - Watches	-4.72990360
637	Digital_Ebook_Purchase - Watches	-66.16100804
638	Digital_Music_Purchase - Watches	-26.90607576
639	Digital_Video_Download - Watches	-60.23220185
640	Electronics - Watches	-3.71277996
641	Furniture - Watches	-0.79701712
642	Grocery - Watches	-2.05683964
643	Health & Personal Care - Watches	-3.84930187
644	Home - Watches	-5.03276321
645	Home Entertainment - Watches	-62.52877495
646	Home Improvement - Watches	-18.09334395
647	Kitchen - Watches	-2.91132584
648	Lawn and Garden - Watches	-8.24694479
649	Luggage - Watches	-4.86115164
650	Mobile_Apps - Watches	-48.08853641
651	Mobile_Electronics - Watches	3.91234238
652	Music - Watches	40.50131850
653	Musical Instruments - Watches	1.56362138
654	Office Products - Watches	-2.86713796
655	Outdoors - Watches	-14.12591520
656	PC - Watches	-38.28776634
657	Personal_Care_Appliances - Watches	-2.28078644
658	Pet Products - Watches	2.16424135
659	Shoes - Watches	-31.81051479
660	Software - Watches	6.50381555

661	Sports - Watches	11.13367199
662	Tools - Watches	-35.97902941
663	Toys - Watches	-28.24050638
664	Video - Watches	66.44928982
665	Video DVD - Watches	18.69221816
666	Video Games - Watches	-26.88865841
667	Apparel - Wireless	0.94111884
668	Automotive - Wireless	4.23282396
669	Baby - Wireless	-1.07929953
670	Beauty - Wireless	0.27889126
671	Books - Wireless	76.76873137
672	Camera - Wireless	45.29974355
673	Digital_Ebook_Purchase - Wireless	-24.21070779
674	Digital_Music_Purchase - Wireless	28.09430317
675	Digital_Video_Download - Wireless	-15.76689899
676	Electronics - Wireless	42.66792330
677	Furniture - Wireless	3.00553849
678	Grocery - Wireless	-0.36291737
679	Health & Personal Care - Wireless	10.14702802
680	Home - Wireless	23.57721404
681	Home Entertainment - Wireless	-26.71577247
682	Home Improvement - Wireless	7.50051477
683	Kitchen - Wireless	14.84971842
684	Lawn and Garden - Wireless	7.91483766
685	Luggage - Wireless	3.31093564
686	Mobile_Apps - Wireless	1.93210781
687	Mobile_Electronics - Wireless	9.05154178
688	Music - Wireless	129.68820800
689	Musical Instruments - Wireless	41.70765914
690	Office Products - Wireless	19.87038925
691	Outdoors - Wireless	5.78967295
692	PC - Wireless	10.00515694
693	Personal_Care_Appliances - Wireless	7.66228668
694	Pet Products - Wireless	4.87075535
695	Shoes - Wireless	0.53224428

696		Software - Wireless	11.92227666
697		Sports - Wireless	45.51483289
698		Tools - Wireless	-9.36492667
699		Toys - Wireless	24.66902119
700		Video - Wireless	142.44103441
701		Video DVD - Wireless	98.54529376
702		Video Games - Wireless	12.54699147
703		Watches - Wireless	40.90765448
	P.unadj	P.adj	
1	7.726201e-01	1.000000e+00	
2	2.866986e-01	1.000000e+00	
3	7.183839e-06	5.050239e-03	
4	7.755557e-01	1.000000e+00	
5	5.962729e-01	1.000000e+00	
6	7.168443e-01	1.000000e+00	
7	2.418423e-04	1.700151e-01	
8	1.191910e-31	8.379130e-29	
9	0.000000e+00	0.000000e+00	
10	5.832916e-03	1.000000e+00	
11	4.640198e-03	1.000000e+00	
12	5.984216e-18	4.206904e-15	
13	6.497889e-238	4.568016e-235	
14	2.739028e-02	1.000000e+00	
15	1.600470e-44	1.125130e-41	
16	1.672485e-02	1.000000e+00	
17	8.248679e-21	5.798821e-18	
18	2.165119e-37	1.522079e-34	
19	2.174565e-01	1.000000e+00	
20	0.000000e+00	0.000000e+00	
21	0.000000e+00	0.000000e+00	
22	3.704838e-01	1.000000e+00	
23	3.948584e-02	1.000000e+00	
24	8.163814e-76	5.739161e-73	
25	3.519866e-01	1.000000e+00	
26	0.000000e+00	0.000000e+00	

27	1.709407e-195	1.201713e-192
28	0.000000e+00	0.000000e+00
29	5.859662e-02	1.000000e+00
30	2.679866e-14	1.883946e-11
31	2.407978e-15	1.692809e-12
32	3.663654e-01	1.000000e+00
33	0.000000e+00	0.000000e+00
34	0.000000e+00	0.000000e+00
35	4.317735e-282	3.035368e-279
36	0.000000e+00	0.000000e+00
37	3.573875e-03	1.000000e+00
38	8.218899e-19	5.777886e-16
39	2.694406e-228	1.894168e-225
40	2.376923e-02	1.000000e+00
41	2.317102e-27	1.628923e-24
42	3.493739e-01	1.000000e+00
43	0.000000e+00	0.000000e+00
44	5.669662e-165	3.985773e-162
45	0.000000e+00	0.000000e+00
46	1.054925e-01	1.000000e+00
47	6.559215e-02	1.000000e+00
48	1.864528e-03	1.000000e+00
49	1.181674e-01	1.000000e+00
50	2.693103e-01	1.000000e+00
51	7.192069e-01	1.000000e+00
52	1.687305e-05	1.186175e-02
53	1.708127e-01	1.000000e+00
54	1.155173e-04	8.120864e-02
55	6.639149e-01	1.000000e+00
56	4.932399e-01	1.000000e+00
57	3.948070e-01	1.000000e+00
58	7.551499e-01	1.000000e+00
59	6.491109e-01	1.000000e+00
60	2.824304e-02	1.000000e+00
61	6.259959e-02	1.000000e+00

62	8.317882e-01	1.000000e+00
63	2.745653e-01	1.000000e+00
64	9.893069e-01	1.000000e+00
65	5.804679e-02	1.000000e+00
66	1.198772e-01	1.000000e+00
67	4.061937e-02	1.000000e+00
68	9.248796e-06	6.501903e-03
69	2.344149e-24	1.647936e-21
70	8.643805e-02	1.000000e+00
71	2.546305e-07	1.790052e-04
72	2.106471e-02	1.000000e+00
73	2.971782e-52	2.089163e-49
74	3.335307e-05	2.344721e-02
75	1.119691e-41	7.871429e-39
76	1.022898e-02	1.000000e+00
77	7.985820e-01	1.000000e+00
78	1.155096e-01	1.000000e+00
79	1.234886e-02	1.000000e+00
80	2.545638e-12	1.789584e-09
81	7.805565e-100	5.487312e-97
82	4.605562e-02	1.000000e+00
83	2.053269e-17	1.443448e-14
84	3.405675e-02	1.000000e+00
85	7.837887e-291	5.510035e-288
86	2.233843e-32	1.570392e-29
87	1.531117e-234	1.076375e-231
88	8.789037e-03	1.000000e+00
89	9.347978e-01	1.000000e+00
90	8.247231e-02	1.000000e+00
91	2.343303e-01	1.000000e+00
92	1.627548e-03	1.000000e+00
93	5.087117e-32	3.576243e-29
94	1.265376e-69	8.895592e-67
95	8.283508e-02	1.000000e+00
96	0.000000e+00	0.000000e+00

97	0.000000e+00	0.000000e+00
98	9.989520e-39	7.022633e-36
99	0.000000e+00	0.000000e+00
100	3.308442e-102	2.325835e-99
101	0.000000e+00	0.000000e+00
102	6.457974e-07	4.539956e-04
103	6.063959e-01	1.000000e+00
104	3.114264e-68	2.189328e-65
105	0.000000e+00	0.000000e+00
106	8.075198e-01	1.000000e+00
107	8.662438e-01	1.000000e+00
108	2.198972e-13	1.545877e-10
109	6.163540e-01	1.000000e+00
110	2.166456e-119	1.523019e-116
111	4.125044e-60	2.899906e-57
112	9.406530e-72	6.612791e-69
113	1.421079e-05	9.990188e-03
114	1.247515e-47	8.770032e-45
115	4.772296e-61	3.354924e-58
116	5.325657e-02	1.000000e+00
117	4.045936e-01	1.000000e+00
118	1.245610e-08	8.756638e-06
119	3.031695e-30	2.131281e-27
120	8.836105e-103	6.211781e-100
121	1.103506e-02	1.000000e+00
122	4.159697e-10	2.924267e-07
123	1.041255e-47	7.320024e-45
124	4.188281e-02	1.000000e+00
125	4.685961e-06	3.294230e-03
126	3.424521e-01	1.000000e+00
127	3.607423e-103	2.536019e-100
128	2.147353e-13	1.509589e-10
129	7.789433e-84	5.475972e-81
130	1.975056e-01	1.000000e+00
131	8.773269e-01	1.000000e+00

132	7.756034e-02	1.000000e+00
133	2.100146e-01	1.000000e+00
134	7.529534e-01	1.000000e+00
135	1.069531e-128	7.518806e-126
136	7.387150e-18	5.193166e-15
137	2.779689e-01	1.000000e+00
138	3.285081e-02	1.000000e+00
139	1.259005e-15	8.850808e-13
140	2.877070e-01	1.000000e+00
141	9.266856e-24	6.514600e-21
142	4.350866e-11	3.058659e-08
143	1.588165e-43	1.116480e-40
144	3.815393e-01	1.000000e+00
145	2.009444e-32	1.412639e-29
146	7.203621e-12	5.064146e-09
147	2.534638e-01	1.000000e+00
148	2.398475e-01	1.000000e+00
149	9.315644e-03	1.000000e+00
150	9.933271e-07	6.983089e-04
151	1.193425e-60	8.389780e-58
152	2.910047e-03	1.000000e+00
153	1.455389e-05	1.023138e-02
154	4.881612e-01	1.000000e+00
155	4.175088e-01	1.000000e+00
156	4.454469e-04	3.131492e-01
157	4.183273e-01	1.000000e+00
158	2.283863e-08	1.605556e-05
159	7.823772e-05	5.500112e-02
160	8.466637e-10	5.952046e-07
161	8.235174e-01	1.000000e+00
162	2.392649e-07	1.682032e-04
163	4.084641e-05	2.871503e-02
164	1.810116e-01	1.000000e+00
165	3.051367e-01	1.000000e+00
166	2.306326e-02	1.000000e+00

167	1.097362e-03	7.714458e-01
168	3.852374e-14	2.708219e-11
169	3.203806e-01	1.000000e+00
170	1.250981e-03	8.794397e-01
171	5.563349e-01	1.000000e+00
172	4.081356e-01	1.000000e+00
173	8.921305e-05	6.271677e-02
174	1.835865e-02	1.000000e+00
175	8.390936e-01	1.000000e+00
176	0.000000e+00	0.000000e+00
177	0.000000e+00	0.000000e+00
178	0.000000e+00	0.000000e+00
179	0.000000e+00	0.000000e+00
180	0.000000e+00	0.000000e+00
181	0.000000e+00	0.000000e+00
182	3.653924e-03	1.000000e+00
183	6.826327e-01	1.000000e+00
184	2.432865e-23	1.710304e-20
185	2.623792e-136	1.844526e-133
186	0.000000e+00	0.000000e+00
187	3.151358e-13	2.215404e-10
188	1.117206e-49	7.853959e-47
189	1.750159e-14	1.230362e-11
190	1.879313e-03	1.000000e+00
191	3.901051e-07	2.742439e-04
192	8.036965e-13	5.649986e-10
193	5.252048e-20	3.692190e-17
194	3.986299e-05	2.802368e-02
195	4.301674e-04	3.024077e-01
196	6.332518e-06	4.451760e-03
197	2.791477e-27	1.962408e-24
198	7.009007e-12	4.927332e-09
199	1.691882e-24	1.189393e-21
200	1.035444e-05	7.279173e-03
201	2.847289e-03	1.000000e+00



202	1.442050e-03	1.000000e+00
203	4.325247e-07	3.040649e-04
204	1.312470e-06	9.226662e-04
205	1.128867e-31	7.935932e-29
206	5.218650e-14	3.668711e-11
207	3.783085e-06	2.659509e-03
208	2.881090e-10	2.025407e-07
209	2.794398e-09	1.964462e-06
210	4.073941e-19	2.863981e-16
211	8.350072e-12	5.870100e-09
212	5.679327e-114	3.992567e-111
213	0.000000e+00	0.000000e+00
214	1.313497e-06	9.233882e-04
215	0.000000e+00	0.000000e+00
216	0.000000e+00	0.000000e+00
217	0.000000e+00	0.000000e+00
218	0.000000e+00	0.000000e+00
219	0.000000e+00	0.000000e+00
220	0.000000e+00	0.000000e+00
221	8.702903e-05	6.118141e-02
222	5.635043e-04	3.961435e-01
223	4.713238e-56	3.313407e-53
224	1.234342e-223	8.677424e-221
225	0.000000e+00	0.000000e+00
226	0.000000e+00	0.000000e+00
227	4.153941e-74	2.920221e-71
228	3.792781e-112	2.666325e-109
229	1.232300e-31	8.663068e-29
230	0.000000e+00	0.000000e+00
231	7.759613e-01	1.000000e+00
232	4.508813e-04	3.169695e-01
233	1.079893e-26	7.591650e-24
234	5.033710e-249	3.538698e-246
235	7.938006e-03	1.000000e+00
236	9.779087e-02	1.000000e+00

237	1.305673e-10	9.178884e-08
238	0.000000e+00	0.000000e+00
239	8.699920e-174	6.116044e-171
240	0.000000e+00	0.000000e+00
241	8.671384e-08	6.095983e-05
242	3.325107e-01	1.000000e+00
243	3.287688e-02	1.000000e+00
244	8.129438e-06	5.714995e-03
245	6.480597e-10	4.555860e-07
246	0.000000e+00	0.000000e+00
247	6.813611e-81	4.789968e-78
248	2.347517e-04	1.650304e-01
249	4.056259e-19	2.851550e-16
250	1.737392e-07	1.221387e-04
251	0.000000e+00	0.000000e+00
252	2.342305e-04	1.646640e-01
253	3.277071e-298	2.303781e-295
254	6.484264e-03	1.000000e+00
255	3.003171e-13	2.111229e-10
256	2.664748e-78	1.873318e-75
257	3.186584e-02	1.000000e+00
258	3.146515e-07	2.212000e-04
259	7.018265e-01	1.000000e+00
260	2.594121e-186	1.823667e-183
261	1.762428e-25	1.238987e-22
262	4.574999e-152	3.216224e-149
263	4.114568e-01	1.000000e+00
264	7.697219e-01	1.000000e+00
265	6.729455e-02	1.000000e+00
266	6.952778e-02	1.000000e+00
267	2.804992e-01	1.000000e+00
268	6.232540e-222	4.381476e-219
269	6.940928e-28	4.879472e-25
270	5.936115e-01	1.000000e+00
271	1.042940e-07	7.331871e-05

272	2.829087e-04	1.988848e-01
273	2.046210e-91	1.438485e-88
274	6.452224e-06	4.535914e-03
275	1.150519e-116	8.088150e-114
276	1.310670e-04	9.214009e-02
277	7.977056e-01	1.000000e+00
278	9.105879e-01	1.000000e+00
279	2.905004e-09	2.042218e-06
280	6.107873e-01	1.000000e+00
281	2.138614e-65	1.503446e-62
282	3.096208e-35	2.176634e-32
283	2.348613e-40	1.651075e-37
284	1.621240e-03	1.000000e+00
285	4.194997e-27	2.949083e-24
286	1.788687e-36	1.257447e-33
287	5.664864e-02	1.000000e+00
288	4.018947e-01	1.000000e+00
289	1.661066e-07	1.167729e-04
290	5.060242e-21	3.557350e-18
291	7.078961e-61	4.976509e-58
292	9.513486e-01	1.000000e+00
293	1.597554e-14	1.123080e-11
294	7.843587e-03	1.000000e+00
295	3.489472e-01	1.000000e+00
296	4.895636e-08	3.441632e-05
297	1.219827e-13	8.575381e-11
298	1.022891e-237	7.190923e-235
299	2.103932e-50	1.479064e-47
300	5.965196e-21	4.193532e-18
301	8.047878e-01	1.000000e+00
302	5.883185e-02	1.000000e+00
303	4.804369e-14	3.377471e-11
304	8.583249e-01	1.000000e+00
305	0.000000e+00	0.000000e+00
306	0.000000e+00	0.000000e+00

307	0.000000e+00	0.000000e+00
308	3.894869e-137	2.738093e-134
309	0.000000e+00	0.000000e+00
310	0.000000e+00	0.000000e+00
311	1.692751e-02	1.000000e+00
312	5.228679e-01	1.000000e+00
313	1.869180e-15	1.314034e-12
314	6.500709e-88	4.569998e-85
315	0.000000e+00	0.000000e+00
316	1.121995e-03	7.887625e-01
317	4.158827e-34	2.923656e-31
318	9.726398e-08	6.837658e-05
319	4.740092e-02	1.000000e+00
320	2.878512e-54	2.023594e-51
321	1.879817e-16	1.321511e-13
322	0.000000e+00	0.000000e+00
323	0.000000e+00	0.000000e+00
324	2.047467e-62	1.439369e-59
325	1.207691e-02	1.000000e+00
326	3.117859e-02	1.000000e+00
327	6.928682e-05	4.870863e-02
328	5.639220e-15	3.964372e-12
329	6.992345e-02	1.000000e+00
330	1.730712e-03	1.000000e+00
331	2.479402e-01	1.000000e+00
332	7.130766e-29	5.012929e-26
333	6.811730e-04	4.788646e-01
334	2.099900e-23	1.476230e-20
335	1.776838e-01	1.000000e+00
336	9.392678e-01	1.000000e+00
337	1.003964e-01	1.000000e+00
338	6.929163e-01	1.000000e+00
339	6.798511e-01	1.000000e+00
340	1.078485e-37	7.581748e-35
341	3.114793e-06	2.189699e-03

342	5.792964e-01	1.000000e+00
343	1.349564e-02	1.000000e+00
344	1.967006e-02	1.000000e+00
345	8.474628e-14	5.957664e-11
346	5.082433e-06	3.572951e-03
347	3.663379e-26	2.575356e-23
348	6.447628e-03	1.000000e+00
349	3.568587e-01	1.000000e+00
350	9.226493e-06	6.486224e-03
351	1.235072e-09	8.682558e-07
352	3.032781e-04	2.132045e-01
353	5.821350e-05	4.092409e-02
354	7.616980e-07	5.354737e-04
355	9.085979e-04	6.387444e-01
356	5.112411e-02	1.000000e+00
357	1.321454e-02	1.000000e+00
358	6.915166e-09	4.861362e-06
359	2.085470e-04	1.466085e-01
360	4.371365e-08	3.073070e-05
361	1.535684e-02	1.000000e+00
362	2.575872e-02	1.000000e+00
363	3.796222e-03	1.000000e+00
364	4.072993e-03	1.000000e+00
365	7.647780e-03	1.000000e+00
366	3.550413e-10	2.495940e-07
367	4.079521e-05	2.867903e-02
368	9.441669e-03	1.000000e+00
369	4.279145e-04	3.008239e-01
370	3.254350e-04	2.287808e-01
371	1.579665e-06	1.110505e-03
372	9.318092e-01	1.000000e+00
373	9.576264e-01	1.000000e+00
374	4.120876e-02	1.000000e+00
375	1.210184e-02	1.000000e+00
376	4.528774e-05	3.183728e-02

377	9.323402e-06	6.554352e-03
378	6.986246e-03	1.000000e+00
379	3.809011e-01	1.000000e+00
380	1.062899e-04	7.472179e-02
381	1.860857e-01	1.000000e+00
382	8.121067e-01	1.000000e+00
383	0.000000e+00	0.000000e+00
384	1.904559e-223	1.338905e-220
385	1.037697e-50	7.295013e-48
386	5.423566e-65	3.812767e-62
387	1.614573e-23	1.135045e-20
388	3.072660e-214	2.160080e-211
389	3.255446e-03	1.000000e+00
390	6.984919e-01	1.000000e+00
391	7.710316e-22	5.420352e-19
392	2.590368e-91	1.821028e-88
393	1.377795e-85	9.685901e-83
394	2.521453e-10	1.772582e-07
395	2.094929e-43	1.472735e-40
396	2.334916e-13	1.641446e-10
397	1.613956e-03	1.000000e+00
398	5.963675e-01	1.000000e+00
399	4.089235e-19	2.874732e-16
400	0.000000e+00	0.000000e+00
401	2.487522e-235	1.748728e-232
402	9.587690e-72	6.740146e-69
403	3.148532e-07	2.213418e-04
404	3.183666e-09	2.238117e-06
405	1.516805e-13	1.066314e-10
406	1.399778e-06	9.840440e-04
407	2.636240e-11	1.853277e-08
408	1.814413e-22	1.275532e-19
409	2.916658e-33	2.050410e-30
410	1.426751e-07	1.003006e-04
411	1.009718e-09	7.098315e-07

412	8.873015e-13	6.237730e-10
413	2.821516e-43	1.983526e-40
414	6.618646e-22	4.652908e-19
415	1.555684e-39	1.093646e-36
416	2.017791e-12	1.418507e-09
417	9.936165e-06	6.985124e-03
418	8.895028e-05	6.253204e-02
419	4.867425e-14	3.421800e-11
420	9.084554e-14	6.386441e-11
421	4.694608e-49	3.300310e-46
422	9.426436e-25	6.626785e-22
423	8.534642e-13	5.999853e-10
424	5.900521e-19	4.148066e-16
425	3.005342e-16	2.112755e-13
426	3.521318e-32	2.475487e-29
427	9.826655e-02	1.000000e+00
428	3.563969e-02	1.000000e+00
429	3.925945e-10	2.759940e-07
430	1.427638e-12	1.003630e-09
431	4.894616e-24	3.440915e-21
432	1.904665e-28	1.338980e-25
433	6.692358e-12	4.704728e-09
434	3.235478e-01	1.000000e+00
435	4.846124e-32	3.406825e-29
436	1.005194e-06	7.066512e-04
437	2.248622e-50	1.580781e-47
438	0.000000e+00	0.000000e+00
439	3.561136e-04	2.503479e-01
440	1.273909e-27	8.955577e-25
441	3.733248e-59	2.624474e-56
442	0.000000e+00	0.000000e+00
443	4.827297e-256	3.393590e-253
444	0.000000e+00	0.000000e+00
445	6.283609e-51	4.417377e-48
446	2.714814e-02	1.000000e+00

447	7.191875e-03	1.000000e+00
448	2.351817e-18	1.653327e-15
449	5.966696e-42	4.194587e-39
450	0.000000e+00	0.000000e+00
451	5.699705e-139	4.006892e-136
452	3.503689e-19	2.463093e-16
453	1.655287e-42	1.163667e-39
454	5.227064e-15	3.674626e-12
455	0.000000e+00	0.000000e+00
456	4.596147e-02	1.000000e+00
457	4.075637e-62	2.865173e-59
458	4.924213e-22	3.461722e-19
459	1.298272e-24	9.126854e-22
460	2.115239e-91	1.487013e-88
461	0.000000e+00	0.000000e+00
462	4.281039e-09	3.009571e-06
463	2.483761e-01	1.000000e+00
464	0.000000e+00	0.000000e+00
465	7.631902e-06	5.365227e-03
466	2.370743e-02	1.000000e+00
467	2.938344e-16	2.065656e-13
468	3.056794e-13	2.148926e-10
469	2.478988e-01	1.000000e+00
470	0.000000e+00	0.000000e+00
471	1.434449e-281	1.008418e-278
472	3.905858e-01	1.000000e+00
473	4.277796e-126	3.007291e-123
474	2.829390e-03	1.000000e+00
475	2.632102e-274	1.850368e-271
476	2.979182e-05	2.094365e-02
477	8.667610e-01	1.000000e+00
478	3.975568e-42	2.794824e-39
479	2.268517e-145	1.594767e-142
480	7.836175e-10	5.508831e-07
481	6.340645e-38	4.457473e-35



482	1.273198e-75	8.950582e-73
483	8.630152e-33	6.066997e-30
484	9.377250e-09	6.592207e-06
485	6.773117e-29	4.761502e-26
486	4.734660e-26	3.328466e-23
487	0.000000e+00	0.000000e+00
488	1.774188e-296	1.247254e-293
489	7.802097e-117	5.484874e-114
490	1.260614e-26	8.862120e-24
491	3.031529e-51	2.131165e-48
492	2.197774e-25	1.545035e-22
493	1.178453e-08	8.284526e-06
494	1.625182e-17	1.142503e-14
495	2.348660e-41	1.651108e-38
496	0.000000e+00	0.000000e+00
497	4.667656e-01	1.000000e+00
498	1.399322e-01	1.000000e+00
499	3.994685e-62	2.808263e-59
500	4.120446e-01	1.000000e+00
501	0.000000e+00	0.000000e+00
502	4.634879e-215	3.258320e-212
503	0.000000e+00	0.000000e+00
504	1.001786e-04	7.042553e-02
505	0.000000e+00	0.000000e+00
506	5.091812e-183	3.579544e-180
507	1.287671e-01	1.000000e+00
508	3.048862e-01	1.000000e+00
509	2.569201e-06	1.806148e-03
510	1.977918e-38	1.390476e-35
511	0.000000e+00	0.000000e+00
512	1.383806e-03	9.728159e-01
513	9.307857e-16	6.543424e-13
514	1.263134e-01	1.000000e+00
515	9.196238e-01	1.000000e+00
516	0.000000e+00	0.000000e+00

517	1.692292e-12	1.189681e-09
518	0.000000e+00	0.000000e+00
519	7.058174e-190	4.961896e-187
520	1.098886e-29	7.725167e-27
521	2.088704e-02	1.000000e+00
522	6.314985e-88	4.439434e-85
523	1.516864e-04	1.066355e-01
524	1.364602e-04	9.593151e-02
525	3.251712e-52	2.285954e-49
526	8.399761e-23	5.905032e-20
527	1.001262e-271	7.038875e-269
528	1.903957e-111	1.338482e-108
529	7.632511e-23	5.365655e-20
530	3.079637e-235	2.164984e-232
531	0.000000e+00	0.000000e+00
532	9.089395e-12	6.389845e-09
533	0.000000e+00	0.000000e+00
534	0.000000e+00	0.000000e+00
535	0.000000e+00	0.000000e+00
536	0.000000e+00	0.000000e+00
537	0.000000e+00	0.000000e+00
538	0.000000e+00	0.000000e+00
539	3.859850e-11	2.713475e-08
540	3.396647e-06	2.387843e-03
541	1.522524e-144	1.070334e-141
542	0.000000e+00	0.000000e+00
543	0.000000e+00	0.000000e+00
544	0.000000e+00	0.000000e+00
545	7.164728e-206	5.036804e-203
546	7.046075e-251	4.953390e-248
547	2.531109e-68	1.779370e-65
548	0.000000e+00	0.000000e+00
549	9.217857e-05	6.480153e-02
550	0.000000e+00	0.000000e+00
551	0.000000e+00	0.000000e+00

552	0.000000e+00	0.000000e+00
553	0.000000e+00	0.000000e+00
554	0.000000e+00	0.000000e+00
555	3.270379e-69	2.299077e-66
556	4.948157e-02	1.000000e+00
557	0.000000e+00	0.000000e+00
558	8.541737e-02	1.000000e+00
559	0.000000e+00	0.000000e+00
560	0.000000e+00	0.000000e+00
561	0.000000e+00	0.000000e+00
562	7.706431e-07	5.417621e-04
563	1.634381e-58	1.148970e-55
564	0.000000e+00	0.000000e+00
565	3.255932e-04	2.288920e-01
566	0.000000e+00	0.000000e+00
567	1.057028e-276	7.430907e-274
568	0.000000e+00	0.000000e+00
569	0.000000e+00	0.000000e+00
570	0.000000e+00	0.000000e+00
571	3.677038e-189	2.584958e-186
572	2.516413e-02	1.000000e+00
573	6.962665e-03	1.000000e+00
574	4.184177e-21	2.941476e-18
575	6.497116e-72	4.567473e-69
576	0.000000e+00	0.000000e+00
577	3.364097e-223	2.364960e-220
578	7.834723e-24	5.507810e-21
579	2.822517e-51	1.984230e-48
580	8.353492e-16	5.872505e-13
581	0.000000e+00	0.000000e+00
582	4.657735e-02	1.000000e+00
583	0.000000e+00	0.000000e+00
584	1.102794e-56	7.752644e-54
585	9.098318e-35	6.396117e-32
586	9.803589e-122	6.891923e-119

587	0.000000e+00	0.000000e+00
588	8.818363e-10	6.199309e-07
589	2.524238e-01	1.000000e+00
590	0.000000e+00	0.000000e+00
591	6.917801e-06	4.863214e-03
592	8.598273e-01	1.000000e+00
593	0.000000e+00	0.000000e+00
594	0.000000e+00	0.000000e+00
595	0.000000e+00	0.000000e+00
596	7.972703e-01	1.000000e+00
597	8.848539e-01	1.000000e+00
598	2.054849e-25	1.444559e-22
599	6.098999e-01	1.000000e+00
600	0.000000e+00	0.000000e+00
601	6.868866e-161	4.828813e-158
602	1.222243e-268	8.592366e-266
603	1.673919e-15	1.176765e-12
604	2.445554e-176	1.719224e-173
605	3.711555e-151	2.609223e-148
606	5.300086e-02	1.000000e+00
607	4.014705e-01	1.000000e+00
608	9.344178e-10	6.568957e-07
609	6.066201e-49	4.264539e-46
610	2.230297e-283	1.567899e-280
611	9.451628e-01	1.000000e+00
612	4.823885e-22	3.391191e-19
613	1.128381e-03	7.932520e-01
614	3.170206e-01	1.000000e+00
615	1.143742e-46	8.040506e-44
616	2.992924e-14	2.104025e-11
617	0.000000e+00	0.000000e+00
618	2.049229e-172	1.440608e-169
619	7.113894e-39	5.001067e-36
620	9.859335e-01	1.000000e+00
621	1.479059e-09	1.039779e-06

622	1.344105e-06	9.449057e-04
623	3.976328e-05	2.795359e-02
624	1.221553e-19	8.587516e-17
625	2.828442e-25	1.988395e-22
626	2.075654e-254	1.459185e-251
627	4.386984e-64	3.084050e-61
628	9.695187e-09	6.815716e-06
629	0.000000e+00	0.000000e+00
630	0.000000e+00	0.000000e+00
631	9.121591e-04	6.412478e-01
632	6.604795e-24	4.643171e-21
633	1.158657e-235	8.145359e-233
634	1.148046e-02	1.000000e+00
635	7.722208e-05	5.428712e-02
636	2.246265e-06	1.579124e-03
637	0.000000e+00	0.000000e+00
638	1.864613e-159	1.310823e-156
639	0.000000e+00	0.000000e+00
640	2.049951e-04	1.441116e-01
641	4.254411e-01	1.000000e+00
642	3.970165e-02	1.000000e+00
643	1.184550e-04	8.327383e-02
644	4.834601e-07	3.398725e-04
645	0.000000e+00	0.000000e+00
646	3.595910e-73	2.527925e-70
647	3.598985e-03	1.000000e+00
648	1.624955e-16	1.142343e-13
649	1.167048e-06	8.204348e-04
650	0.000000e+00	0.000000e+00
651	9.140520e-05	6.425785e-02
652	0.000000e+00	0.000000e+00
653	1.179065e-01	1.000000e+00
654	4.142024e-03	1.000000e+00
655	2.629612e-45	1.848617e-42
656	0.000000e+00	0.000000e+00

```

657 2.256109e-02 1.000000e+00
658 3.044583e-02 1.000000e+00
659 4.631548e-222 3.255978e-219
660 7.830791e-11 5.505046e-08
661 8.601750e-29 6.047030e-26
662 1.780339e-283 1.251579e-280
663 1.861704e-175 1.308778e-172
664 0.000000e+00 0.000000e+00
665 5.728117e-78 4.026866e-75
666 2.980765e-159 2.095478e-156
667 3.466440e-01 1.000000e+00
668 2.307751e-05 1.622349e-02
669 2.804542e-01 1.000000e+00
670 7.803283e-01 1.000000e+00
671 0.000000e+00 0.000000e+00
672 0.000000e+00 0.000000e+00
673 1.716017e-129 1.206360e-126
674 1.149888e-173 8.083713e-171
675 5.256820e-56 3.695545e-53
676 0.000000e+00 0.000000e+00
677 2.651110e-03 1.000000e+00
678 7.166666e-01 1.000000e+00
679 3.416082e-24 2.401505e-21
680 6.603451e-123 4.642226e-120
681 3.086904e-157 2.170093e-154
682 6.356769e-14 4.468809e-11
683 6.986148e-50 4.911262e-47
684 2.475759e-15 1.740459e-12
685 9.298459e-04 6.536817e-01
686 5.334620e-02 1.000000e+00
687 1.409637e-19 9.909749e-17
688 0.000000e+00 0.000000e+00
689 0.000000e+00 0.000000e+00
690 7.343127e-88 5.162219e-85
691 7.052361e-09 4.957810e-06

692 1.446621e-23 1.016975e-20
693 1.826514e-14 1.284039e-11
694 1.111724e-06 7.815421e-04
695 5.945568e-01 1.000000e+00
696 9.059845e-33 6.369071e-30
697 0.000000e+00 0.000000e+00
698 7.610312e-21 5.350049e-18
699 2.300492e-134 1.617246e-131
700 0.000000e+00 0.000000e+00
701 0.000000e+00 0.000000e+00
702 4.129017e-36 2.902699e-33
703 0.000000e+00 0.000000e+00

```

```
> dunnTest(total_votes~product_category,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z
1	Apparel - Automotive	-0.71086047
2	Apparel - Baby	0.83964610
3	Automotive - Baby	5.18211043
4	Apparel - Beauty	-0.21213745
5	Automotive - Beauty	0.22876693
6	Baby - Beauty	-0.80757817
7	Apparel - Books	-4.78600354
8	Automotive - Books	-14.05457789
9	Baby - Books	-54.36936920
10	Beauty - Books	-2.89572795
11	Apparel - Camera	-3.04719916
12	Automotive - Camera	-7.87532788
13	Baby - Camera	-32.84952561
14	Beauty - Camera	-1.75350095
15	Books - Camera	29.06394884
16	Apparel - Digital_Ebook_Purchase	1.51310998
17	Automotive - Digital_Ebook_Purchase	7.82589303
18	Baby - Digital_Ebook_Purchase	6.46843766
19	Beauty - Digital_Ebook_Purchase	1.24971949
20	Books - Digital_Ebook_Purchase	459.69282225
21	Camera - Digital_Ebook_Purchase	76.80215972
22	Apparel - Digital_Music_Purchase	-2.44256050
23	Automotive - Digital_Music_Purchase	-5.89388046
24	Baby - Digital_Music_Purchase	-30.79722455
25	Beauty - Digital_Music_Purchase	-1.35384837
26	Books - Digital_Music_Purchase	78.79509323
27	Camera - Digital_Music_Purchase	9.36271792
28	Digital_Ebook_Purchase - Digital_Music_Purchase	-134.98403987
29	Apparel - Digital_Video_Download	-1.02026284
30	Automotive - Digital_Video_Download	-0.97460879

31	Baby - Digital_Video_Download	-17.99741978
32	Beauty - Digital_Video_Download	-0.41749196
33	Books - Digital_Video_Download	253.88227246
34	Camera - Digital_Video_Download	34.02931308
35	Digital_Ebook_Purchase - Digital_Video_Download	-181.31794508
36	Digital_Music_Purchase - Digital_Video_Download	47.66664482
37	Apparel - Electronics	-3.54148970
38	Automotive - Electronics	-9.50081344
39	Baby - Electronics	-35.51132547
40	Beauty - Electronics	-2.07998485
41	Books - Electronics	17.85061837
42	Camera - Electronics	-5.51093688
43	Digital_Ebook_Purchase - Electronics	-73.28231283
44	Digital_Music_Purchase - Electronics	-14.95868359
45	Digital_Video_Download - Electronics	-36.48899260
46	Apparel - Furniture	-2.75293197
47	Automotive - Furniture	-2.93389718
48	Baby - Furniture	-4.42270814
49	Beauty - Furniture	-1.98584320
50	Books - Furniture	0.57967977
51	Camera - Furniture	-0.96514659
52	Digital_Ebook_Purchase - Furniture	-5.03785194
53	Digital_Music_Purchase - Furniture	-1.50905002
54	Digital_Video_Download - Furniture	-2.77856589
55	Electronics - Furniture	-0.52198490
56	Apparel - Grocery	-0.22156374
57	Automotive - Grocery	0.05481329
58	Baby - Grocery	-0.57286107
59	Beauty - Grocery	-0.07298959
60	Books - Grocery	1.66098247
61	Camera - Grocery	0.97269318
62	Digital_Ebook_Purchase - Grocery	-0.83885060
63	Digital_Music_Purchase - Grocery	0.73126050
64	Digital_Video_Download - Grocery	0.16652835
65	Electronics - Grocery	1.16988608



66	Furniture - Grocery	1.28184460
67	Apparel - Health & Personal Care	-2.60985063
68	Automotive - Health & Personal Care	-4.79109199
69	Baby - Health & Personal Care	-11.32649409
70	Beauty - Health & Personal Care	-1.50931037
71	Books - Health & Personal Care	6.92903123
72	Camera - Health & Personal Care	1.08619208
73	Digital_Ebook_Purchase - Health & Personal Care	-14.22798010
74	Digital_Music_Purchase - Health & Personal Care	-0.93495446
75	Digital_Video_Download - Health & Personal Care	-5.71766439
76	Electronics - Health & Personal Care	2.70753722
77	Furniture - Health & Personal Care	1.21813297
78	Grocery - Health & Personal Care	-0.83639234
79	Apparel - Home	-2.77998345
80	Automotive - Home	-6.50164907
81	Baby - Home	-21.52527252
82	Beauty - Home	-1.58579487
83	Books - Home	14.67415627
84	Camera - Home	1.68430058
85	Digital_Ebook_Purchase - Home	-32.00565971
86	Digital_Music_Purchase - Home	-2.62989830
87	Digital_Video_Download - Home	-13.21634376
88	Electronics - Home	4.93058210
89	Furniture - Home	1.17862998
90	Grocery - Home	-0.87353637
91	Health & Personal Care - Home	-0.25133220
92	Apparel - Home Entertainment	2.31678989
93	Automotive - Home Entertainment	10.42678296
94	Baby - Home Entertainment	12.48984420
95	Beauty - Home Entertainment	1.77985192
96	Books - Home Entertainment	120.73254223
97	Camera - Home Entertainment	65.10515039
98	Digital_Ebook_Purchase - Home Entertainment	13.76724482
99	Digital_Music_Purchase - Home Entertainment	74.07493054
100	Digital_Video_Download - Home Entertainment	56.69594982

101	Electronics - Home Entertainment	65.42751550
102	Furniture - Home Entertainment	5.75045942
103	Grocery - Home Entertainment	1.15899841
104	Health & Personal Care - Home Entertainment	16.63543552
105	Home - Home Entertainment	34.97273061
106	Apparel - Home Improvement	-0.21290468
107	Automotive - Home Improvement	1.62319642
108	Baby - Home Improvement	-5.89930503
109	Beauty - Home Improvement	0.11181405
110	Books - Home Improvement	31.00849309
111	Camera - Home Improvement	17.91691695
112	Digital_Ebook_Purchase - Home Improvement	-11.73132364
113	Digital_Music_Purchase - Home Improvement	14.88786575
114	Digital_Video_Download - Home Improvement	5.46076051
115	Electronics - Home Improvement	20.55569477
116	Furniture - Home Improvement	3.46700454
117	Grocery - Home Improvement	0.15271506
118	Health & Personal Care - Home Improvement	7.55477422
119	Home - Home Improvement	12.99055278
120	Home Entertainment - Home Improvement	-16.04365500
121	Apparel - Kitchen	-2.24191903
122	Automotive - Kitchen	-4.22694619
123	Baby - Kitchen	-12.40262204
124	Beauty - Kitchen	-1.24610214
125	Books - Kitchen	10.71269165
126	Camera - Kitchen	3.14193530
127	Digital_Ebook_Purchase - Kitchen	-16.44833333
128	Digital_Music_Purchase - Kitchen	0.60917051
129	Digital_Video_Download - Kitchen	-5.52211630
130	Electronics - Kitchen	5.16654268
131	Furniture - Kitchen	1.60245326
132	Grocery - Kitchen	-0.67204605
133	Health & Personal Care - Kitchen	1.11788266
134	Home - Kitchen	1.87962699
135	Home Entertainment - Kitchen	-19.34950342

136	Home Improvement - Kitchen	-7.60107088
137	Apparel - Lawn and Garden	-1.70302981
138	Automotive - Lawn and Garden	-2.65185026
139	Baby - Lawn and Garden	-9.49862905
140	Beauty - Lawn and Garden	-0.88996860
141	Books - Lawn and Garden	11.93003259
142	Camera - Lawn and Garden	4.97443246
143	Digital_Ebook_Purchase - Lawn and Garden	-12.88117993
144	Digital_Music_Purchase - Lawn and Garden	2.68973493
145	Digital_Video_Download - Lawn and Garden	-2.90100565
146	Electronics - Lawn and Garden	6.82207919
147	Furniture - Lawn and Garden	2.06943911
148	Grocery - Lawn and Garden	-0.45655838
149	Health & Personal Care - Lawn and Garden	2.47012597
150	Home - Lawn and Garden	3.64912072
151	Home Entertainment - Lawn and Garden	-15.66851879
152	Home Improvement - Lawn and Garden	-5.25766954
153	Kitchen - Lawn and Garden	1.58417629
154	Apparel - Luggage	-3.05499379
155	Automotive - Luggage	-4.56201044
156	Baby - Luggage	-8.12399214
157	Beauty - Luggage	-1.90223036
158	Books - Luggage	2.60455668
159	Camera - Luggage	-0.74322893
160	Digital_Ebook_Purchase - Luggage	-9.57623969
161	Digital_Music_Purchase - Luggage	-1.92288502
162	Digital_Video_Download - Luggage	-4.67705988
163	Electronics - Luggage	0.21195311
164	Furniture - Luggage	0.56442965
165	Grocery - Luggage	-1.10345527
166	Health & Personal Care - Luggage	-1.20058013
167	Home - Luggage	-1.18689641
168	Home Entertainment - Luggage	-11.07005717
169	Home Improvement - Luggage	-5.99731572
170	Kitchen - Luggage	-2.00820564

171	Lawn and Garden - Luggage	-2.92073961
172	Apparel - Mobile_Apps	0.74458966
173	Automotive - Mobile_Apps	5.15644047
174	Baby - Mobile_Apps	-0.96214221
175	Beauty - Mobile_Apps	0.74395820
176	Books - Mobile_Apps	414.68553253
177	Camera - Mobile_Apps	63.96330038
178	Digital_Ebook_Purchase - Mobile_Apps	-62.11482416
179	Digital_Music_Purchase - Mobile_Apps	109.39638457
180	Digital_Video_Download - Mobile_Apps	129.64285932
181	Electronics - Mobile_Apps	62.22263546
182	Furniture - Mobile_Apps	4.35250728
183	Grocery - Mobile_Apps	0.53386110
184	Health & Personal Care - Mobile_Apps	11.64727309
185	Home - Mobile_Apps	26.31647446
186	Home Entertainment - Mobile_Apps	-26.90915798
187	Home Improvement - Mobile_Apps	6.51622268
188	Kitchen - Mobile_Apps	13.13548841
189	Lawn and Garden - Mobile_Apps	9.85459065
190	Luggage - Mobile_Apps	8.09026932
191	Apparel - Mobile_Electronics	-5.56014602
192	Automotive - Mobile_Electronics	-7.38044916
193	Baby - Mobile_Electronics	-9.64302649
194	Beauty - Mobile_Electronics	-3.95112337
195	Books - Mobile_Electronics	-2.93961083
196	Camera - Mobile_Electronics	-5.01423746
197	Digital_Ebook_Purchase - Mobile_Electronics	-10.52164363
198	Digital_Music_Purchase - Mobile_Electronics	-5.75648769
199	Digital_Video_Download - Mobile_Electronics	-7.47216294
200	Electronics - Mobile_Electronics	-4.41316407
201	Furniture - Mobile_Electronics	-2.21588766
202	Grocery - Mobile_Electronics	-2.49797382
203	Health & Personal Care - Mobile_Electronics	-5.10567732
204	Home - Mobile_Electronics	-5.25599071
205	Home Entertainment - Mobile_Electronics	-11.46636885

206	Home Improvement - Mobile_Electronics	-8.31267138
207	Kitchen - Mobile_Electronics	-5.71280152
208	Lawn and Garden - Mobile_Electronics	-6.29890847
209	Luggage - Mobile_Electronics	-3.87243315
210	Mobile_Apps - Mobile_Electronics	-9.59668087
211	Apparel - Music	-8.24880735
212	Automotive - Music	-26.08476038
213	Baby - Music	-87.87964105
214	Beauty - Music	-5.17457522
215	Books - Music	-247.76949954
216	Camera - Music	-87.32505716
217	Digital_Ebook_Purchase - Music	-747.54261222
218	Digital_Music_Purchase - Music	-197.19830550
219	Digital_Video_Download - Music	-507.63357164
220	Electronics - Music	-67.96614871
221	Furniture - Music	-3.66774209
222	Grocery - Music	-3.03519167
223	Health & Personal Care - Music	-18.56015562
224	Home - Music	-40.34205845
225	Home Entertainment - Music	-180.00898874
226	Home Improvement - Music	-54.52134254
227	Kitchen - Music	-25.64565203
228	Lawn and Garden - Music	-25.57128802
229	Luggage - Music	-9.30062889
230	Mobile_Apps - Music	-709.59128186
231	Mobile_Electronics - Music	-1.22828888
232	Apparel - Musical Instruments	-4.09351960
233	Automotive - Musical Instruments	-11.18732407
234	Baby - Musical Instruments	-36.34963592
235	Beauty - Musical Instruments	-2.44640012
236	Books - Musical Instruments	7.53436863
237	Camera - Musical Instruments	-9.89928027
238	Digital_Ebook_Purchase - Musical Instruments	-62.72192942
239	Digital_Music_Purchase - Musical Instruments	-17.83028658
240	Digital_Video_Download - Musical Instruments	-34.39279676

241	Electronics - Musical Instruments	-4.97941838
242	Furniture - Musical Instruments	0.02350128
243	Grocery - Musical Instruments	-1.39166891
244	Health & Personal Care - Musical Instruments	-4.46383807
245	Home - Musical Instruments	-8.07942929
246	Home Entertainment - Musical Instruments	-60.45456135
247	Home Improvement - Musical Instruments	-22.64449678
248	Kitchen - Musical Instruments	-7.28316246
249	Lawn and Garden - Musical Instruments	-8.74862258
250	Luggage - Musical Instruments	-1.27790937
251	Mobile_Apps - Musical Instruments	-54.18234236
252	Mobile_Electronics - Musical Instruments	3.73265492
253	Music - Musical Instruments	46.15191876
254	Apparel - Office Products	-2.64234869
255	Automotive - Office Products	-5.75433020
256	Baby - Office Products	-17.22839376
257	Beauty - Office Products	-1.50178994
258	Books - Office Products	11.86525274
259	Camera - Office Products	1.97964840
260	Digital_Ebook_Purchase - Office Products	-23.68805758
261	Digital_Music_Purchase - Office Products	-1.33925066
262	Digital_Video_Download - Office Products	-9.38259269
263	Electronics - Office Products	4.56660528
264	Furniture - Office Products	1.27976574
265	Grocery - Office Products	-0.82446817
266	Health & Personal Care - Office Products	0.11432085
267	Home - Office Products	0.54728408
268	Home Entertainment - Office Products	-26.87766849
269	Home Improvement - Office Products	-10.72840700
270	Kitchen - Office Products	-1.31042894
271	Lawn and Garden - Office Products	-2.99505554
272	Luggage - Office Products	1.38304423
273	Mobile_Apps - Office Products	-19.35289335
274	Mobile_Electronics - Office Products	5.35099810
275	Music - Office Products	31.41306966



276	Musical Instruments - Office Products	7.19887335
277	Apparel - Outdoors	-0.32554860
278	Automotive - Outdoors	1.16479909
279	Baby - Outdoors	-5.24022531
280	Beauty - Outdoors	0.03519624
281	Books - Outdoors	22.31173588
282	Camera - Outdoors	13.08870228
283	Digital_Ebook_Purchase - Outdoors	-9.24517594
284	Digital_Music_Purchase - Outdoors	10.48886101
285	Digital_Video_Download - Outdoors	3.44771974
286	Electronics - Outdoors	15.26405366
287	Furniture - Outdoors	3.34017939
288	Grocery - Outdoors	0.10630730
289	Health & Personal Care - Outdoors	6.67492429
290	Home - Outdoors	10.28037820
291	Home Entertainment - Outdoors	-12.77603677
292	Home Improvement - Outdoors	-0.47131063
293	Kitchen - Outdoors	6.44227679
294	Lawn and Garden - Outdoors	4.41631462
295	Luggage - Outdoors	5.60696103
296	Mobile_Apps - Outdoors	-5.39493110
297	Mobile_Electronics - Outdoors	8.07215801
298	Music - Outdoors	39.66617363
299	Musical Instruments - Outdoors	17.29651572
300	Office Products - Outdoors	8.82144298
301	Apparel - PC	-0.10505649
302	Automotive - PC	2.18798279
303	Baby - PC	-8.68551453
304	Beauty - PC	0.18471719
305	Books - PC	123.69389868
306	Camera - PC	42.63744844
307	Digital_Ebook_Purchase - PC	-43.13681530
308	Digital_Music_Purchase - PC	50.98375542
309	Digital_Video_Download - PC	24.12041096
310	Electronics - PC	44.40520940

311	Furniture - PC	3.59295215
312	Grocery - PC	0.19663358
313	Health & Personal Care - PC	8.73150742
314	Home - PC	19.36042935
315	Home Entertainment - PC	-35.44162234
316	Home Improvement - PC	0.72655379
317	Kitchen - PC	9.36244549
318	Lawn and Garden - PC	6.44477041
319	Luggage - PC	6.43206525
320	Mobile_Apps - PC	-22.73052930
321	Mobile_Electronics - PC	8.56614617
322	Music - PC	216.50506547
323	Musical Instruments - PC	41.56800649
324	Office Products - PC	14.27314214
325	Outdoors - PC	1.11920146
326	Apparel - Personal_Care_Appliances	-3.53588367
327	Automotive - Personal_Care_Appliances	-6.04849908
328	Baby - Personal_Care_Appliances	-10.72733505
329	Beauty - Personal_Care_Appliances	-2.19003622
330	Books - Personal_Care_Appliances	2.22602750
331	Camera - Personal_Care_Appliances	-1.84076461
332	Digital_Ebook_Purchase - Personal_Care_Appliances	-12.61251423
333	Digital_Music_Purchase - Personal_Care_Appliances	-3.28596544
334	Digital_Video_Download - Personal_Care_Appliances	-6.64412207
335	Electronics - Personal_Care_Appliances	-0.67778658
336	Furniture - Personal_Care_Appliances	0.24606029
337	Grocery - Personal_Care_Appliances	-1.26809375
338	Health & Personal Care - Personal_Care_Appliances	-2.15718542
339	Home - Personal_Care_Appliances	-2.32696408
340	Home Entertainment - Personal_Care_Appliances	-14.38444455
341	Home Improvement - Personal_Care_Appliances	-8.07239279
342	Kitchen - Personal_Care_Appliances	-3.18433922
343	Lawn and Garden - Personal_Care_Appliances	-4.21492464
344	Luggage - Personal_Care_Appliances	-0.60085513
345	Mobile_Apps - Personal_Care_Appliances	-10.80243140



346	Mobile_Electronics - Personal_Care_Appliances	3.63100059
347	Music - Personal_Care_Appliances	10.38307708
348	Musical Instruments - Personal_Care_Appliances	0.61928836
349	Office Products - Personal_Care_Appliances	-2.51786507
350	Outdoors - Personal_Care_Appliances	-7.48354543
351	PC - Personal_Care_Appliances	-8.77028731
352	Apparel - Pet Products	-4.38770057
353	Automotive - Pet Products	-4.64911674
354	Baby - Pet Products	-5.71724110
355	Beauty - Pet Products	-3.56558910
356	Books - Pet Products	-2.16142201
357	Camera - Pet Products	-3.25792040
358	Digital_Ebook_Purchase - Pet Products	-6.15331153
359	Digital_Music_Purchase - Pet Products	-3.64549654
360	Digital_Video_Download - Pet Products	-4.54783594
361	Electronics - Pet Products	-2.94224796
362	Furniture - Pet Products	-2.09771784
363	Grocery - Pet Products	-2.55493513
364	Health & Personal Care - Pet Products	-3.40888488
365	Home - Pet Products	-3.40458606
366	Home Entertainment - Pet Products	-6.66063762
367	Home Improvement - Pet Products	-5.03632793
368	Kitchen - Pet Products	-3.69652277
369	Lawn and Garden - Pet Products	-4.02937022
370	Luggage - Pet Products	-2.86518188
371	Mobile_Apps - Pet Products	-5.66629779
372	Mobile_Electronics - Pet Products	-0.54305944
373	Music - Pet Products	0.03297918
374	Musical Instruments - Pet Products	-2.58603047
375	Office Products - Pet Products	-3.47229862
376	Outdoors - Pet Products	-4.94484661
377	PC - Pet Products	-5.12653343
378	Personal_Care_Appliances - Pet Products	-2.66562802
379	Apparel - Shoes	0.63149572
380	Automotive - Shoes	4.50914416

381	Baby - Shoes	-1.45445190
382	Beauty - Shoes	0.67015730
383	Books - Shoes	53.62651859
384	Camera - Shoes	31.65807135
385	Digital_Ebook_Purchase - Shoes	-8.70101637
386	Digital_Music_Purchase - Shoes	29.49728126
387	Digital_Video_Download - Shoes	16.36610402
388	Electronics - Shoes	34.39149012
389	Furniture - Shoes	4.23758719
390	Grocery - Shoes	0.48984757
391	Health & Personal Care - Shoes	10.68882743
392	Home - Shoes	20.47086933
393	Home Entertainment - Shoes	-14.52631749
394	Home Improvement - Shoes	4.77061608
395	Kitchen - Shoes	11.62266789
396	Lawn and Garden - Shoes	8.76349208
397	Luggage - Shoes	7.73384704
398	Mobile_Apps - Shoes	-1.08938739
399	Mobile_Electronics - Shoes	9.39627104
400	Music - Shoes	87.95759318
401	Musical Instruments - Shoes	35.29676240
402	Office Products - Shoes	16.30422971
403	Outdoors - Shoes	4.32891260
404	PC - Shoes	6.91734989
405	Personal_Care_Appliances - Shoes	10.26147712
406	Pet Products - Shoes	5.58538391
407	Apparel - Software	-6.80345753
408	Automotive - Software	-9.43804995
409	Baby - Software	-11.95183682
410	Beauty - Software	-4.83604996
411	Books - Software	-4.91701053
412	Camera - Software	-7.09520364
413	Digital_Ebook_Purchase - Software	-12.90047406
414	Digital_Music_Purchase - Software	-7.88170399
415	Digital_Video_Download - Software	-9.68948850

416	Electronics	- Software	-6.46023329
417	Furniture	- Software	-3.30385778
418	Grocery	- Software	-3.05447462
419	Health & Personal Care	- Software	-7.04779670
420	Home	- Software	-7.32258354
421	Home Entertainment	- Software	-13.88733769
422	Home Improvement	- Software	-10.52947891
423	Kitchen	- Software	-7.73991719
424	Lawn and Garden	- Software	-8.33635184
425	Luggage	- Software	-5.54082702
426	Mobile Apps	- Software	-11.92656667
427	Mobile_Electronics	- Software	-1.25466305
428	Music	- Software	-0.52849665
429	Musical Instruments	- Software	-5.73826236
430	Office Products	- Software	-7.39886584
431	Outdoors	- Software	-10.24092474
432	PC	- Software	-10.83875398
433	Personal_Care Appliances	- Software	-5.38548002
434	Pet Products	- Software	-0.26586579
435	Shoes	- Software	-11.69333334
436	Apparel	- Sports	-5.27706023
437	Automotive	- Sports	-14.76384968
438	Baby	- Sports	-39.96917352
439	Beauty	- Sports	-3.23229988
440	Books	- Sports	-4.57053235
441	Camera	- Sports	-17.55842921
442	Digital_Ebook_Purchase	- Sports	-59.44094866
443	Digital_Music_Purchase	- Sports	-24.34484872
444	Digital_Video_Download	- Sports	-37.32937458
445	Electronics	- Sports	-13.20744767
446	Furniture	- Sports	-1.04270131
447	Grocery	- Sports	-1.86751276
448	Health & Personal Care	- Sports	-8.11842347
449	Home	- Sports	-14.18477138
450	Home Entertainment	- Sports	-59.48923325

451	Home Improvement - Sports	-27.34852557
452	Kitchen - Sports	-11.64670675
453	Lawn and Garden - Sports	-12.77072656
454	Luggage - Sports	-3.53531596
455	Mobile_Apps - Sports	-52.76687937
456	Mobile_Electronics - Sports	2.28600853
457	Music - Sports	25.57880045
458	Musical Instruments - Sports	-8.28173483
459	Office Products - Sports	-12.47186331
460	Outdoors - Sports	-21.66039415
461	PC - Sports	-43.34625389
462	Personal_Care_Appliances - Sports	-3.34474937
463	Pet Products - Sports	1.82382192
464	Shoes - Sports	-39.02762055
465	Software - Sports	4.20767777
466	Apparel - Tools	1.97846150
467	Automotive - Tools	8.66122862
468	Baby - Tools	6.93735063
469	Beauty - Tools	1.56119639
470	Books - Tools	51.98469117
471	Camera - Tools	35.37202266
472	Digital_Ebook_Purchase - Tools	3.69721482
473	Digital_Music_Purchase - Tools	33.37363511
474	Digital_Video_Download - Tools	23.11071217
475	Electronics - Tools	37.72613648
476	Furniture - Tools	5.43140742
477	Grocery - Tools	1.02874245
478	Health & Personal Care - Tools	14.52756487
479	Home - Tools	25.64597905
480	Home Entertainment - Tools	-2.28667817
481	Home Improvement - Tools	11.25966361
482	Kitchen - Tools	16.16868165
483	Lawn and Garden - Tools	13.16084891
484	Luggage - Tools	10.19237538
485	Mobile_Apps - Tools	9.59589891



486	Mobile_Electronics - Tools	10.96881260
487	Music - Tools	78.57053877
488	Musical Instruments - Tools	38.71446595
489	Office Products - Tools	21.30676997
490	Outdoors - Tools	9.77621476
491	PC - Tools	15.55238784
492	Personal_Care_Appliances - Tools	13.14760856
493	Pet Products - Tools	6.43700290
494	Shoes - Tools	8.27583796
495	Software - Tools	13.33227491
496	Sports - Tools	42.17667158
497	Apparel - Toys	-1.31709412
498	Automotive - Toys	-1.99616999
499	Baby - Toys	-19.98671191
500	Beauty - Toys	-0.61312836
501	Books - Toys	100.60858049
502	Camera - Toys	25.75972326
503	Digital_Ebook_Purchase - Toys	-82.98775759
504	Digital_Music_Purchase - Toys	26.10215871
505	Digital_Video_Download - Toys	-8.60219289
506	Electronics - Toys	29.37344259
507	Furniture - Toys	2.51231813
508	Grocery - Toys	-0.28455922
509	Health & Personal Care - Toys	4.69311852
510	Home - Toys	10.73210807
511	Home Entertainment - Toys	-54.59826766
512	Home Improvement - Toys	-7.31723160
513	Kitchen - Toys	4.20208174
514	Lawn and Garden - Toys	1.71665635
515	Luggage - Toys	4.09445430
516	Mobile_Apps - Toys	-60.71697788
517	Mobile_Electronics - Toys	7.10913306
518	Music - Toys	202.53121769
519	Musical Instruments - Toys	29.36857327
520	Office Products - Toys	7.58818682

521	Outdoors - Toys	-4.87878670
522	PC - Toys	-24.71192700
523	Personal_Care_Appliances - Toys	5.92753631
524	Pet Products - Toys	4.35847631
525	Shoes - Toys	-18.45381480
526	Software - Toys	9.30525611
527	Sports - Toys	33.53441456
528	Tools - Toys	-24.69790029
529	Apparel - Video	-12.47853985
530	Automotive - Video	-40.30558331
531	Baby - Video	-117.63391207
532	Beauty - Video	-7.96326118
533	Books - Video	-159.23819126
534	Camera - Video	-125.16672217
535	Digital_Ebook_Purchase - Video	-290.95121945
536	Digital_Music_Purchase - Video	-183.05903177
537	Digital_Video_Download - Video	-236.67993484
538	Electronics - Video	-107.44400697
539	Furniture - Video	-7.44536154
540	Grocery - Video	-4.71828731
541	Health & Personal Care - Video	-32.42141566
542	Home - Video	-67.89566958
543	Home Entertainment - Video	-198.04591506
544	Home Improvement - Video	-79.48153839
545	Kitchen - Video	-43.09030607
546	Lawn and Garden - Video	-41.59773078
547	Luggage - Video	-17.43576827
548	Mobile_Apps - Video	-275.57458275
549	Mobile_Electronics - Video	-6.32566794
550	Music - Video	-88.00650543
551	Musical Instruments - Video	-83.03736904
552	Office Products - Video	-53.56112428
553	Outdoors - Video	-59.34765618
554	PC - Video	-207.56495975
555	Personal_Care_Appliances - Video	-20.25795258

556	Pet Products - Video	-2.72073918
557	Shoes - Video	-118.13340703
558	Software - Video	-4.84074220
559	Sports - Video	-57.98534844
560	Tools - Video	-104.70121949
561	Toys - Video	-193.99971461
562	Apparel - Video DVD	-7.85944914
563	Automotive - Video DVD	-24.73597484
564	Baby - Video DVD	-84.22417992
565	Beauty - Video DVD	-4.91829745
566	Books - Video DVD	-237.30246471
567	Camera - Video DVD	-81.09680158
568	Digital_Ebook_Purchase - Video DVD	-783.94148538
569	Digital_Music_Purchase - Video DVD	-186.96937987
570	Digital_Video_Download - Video DVD	-516.72763826
571	Electronics - Video DVD	-62.51381901
572	Furniture - Video DVD	-3.32045590
573	Grocery - Video DVD	-2.88063701
574	Health & Personal Care - Video DVD	-17.25473189
575	Home - Video DVD	-37.48431010
576	Home Entertainment - Video DVD	-174.07394892
577	Home Improvement - Video DVD	-51.91116904
578	Kitchen - Video DVD	-23.97244336
579	Lawn and Garden - Video DVD	-24.04234424
580	Luggage - Video DVD	-8.54795324
581	Mobile_Apps - Video DVD	-745.94965237
582	Mobile_Electronics - Video DVD	-0.75952452
583	Music - Video DVD	31.74848990
584	Musical Instruments - Video DVD	-41.88130014
585	Office Products - Video DVD	-29.22768740
586	Outdoors - Video DVD	-37.72788355
587	PC - Video DVD	-208.19104295
588	Personal_Care_Appliances - Video DVD	-9.46636748
589	Pet Products - Video DVD	0.21383333
590	Shoes - Video DVD	-84.21536173

591	Software - Video DVD	1.02211547
592	Sports - Video DVD	-22.21073129
593	Tools - Video DVD	-75.64474134
594	Toys - Video DVD	-193.44314321
595	Video - Video DVD	96.65985020
596	Apparel - Video Games	-0.78275942
597	Automotive - Video Games	-0.15221061
598	Baby - Video Games	-12.77347359
599	Beauty - Video Games	-0.26229942
600	Books - Video Games	52.75143173
601	Camera - Video Games	23.77024993
602	Digital_Ebook_Purchase - Video Games	-30.36323399
603	Digital_Music_Purchase - Video Games	20.69155833
604	Digital_Video_Download - Video Games	3.10081170
605	Electronics - Video Games	27.19127031
606	Furniture - Video Games	2.98188792
607	Grocery - Video Games	-0.07309983
608	Health & Personal Care - Video Games	6.31399248
609	Home - Video Games	13.10276037
610	Home Entertainment - Video Games	-32.72542566
611	Home Improvement - Video Games	-3.45021396
612	Kitchen - Video Games	6.22448108
613	Lawn and Garden - Video Games	3.67346445
614	Luggage - Video Games	5.07985125
615	Mobile_Apps - Video Games	-20.22648493
616	Mobile_Electronics - Video Games	7.72453145
617	Music - Video Games	98.55294231
618	Musical Instruments - Video Games	28.50722585
619	Office Products - Video Games	9.87594801
620	Outdoors - Video Games	-2.12615939
621	PC - Video Games	-8.14129377
622	Personal_Care_Appliances - Video Games	7.09045577
623	Pet Products - Video Games	4.69176676
624	Shoes - Video Games	-11.30861792
625	Software - Video Games	9.94366317



626	Sports - Video Games	33.05891665
627	Tools - Video Games	-18.51007198
628	Toys - Video Games	6.49543293
629	Video - Video Games	131.86242123
630	Video DVD - Video Games	93.63593480
631	Apparel - Watches	-4.00442258
632	Automotive - Watches	-10.92035621
633	Baby - Watches	-36.23431993
634	Beauty - Watches	-2.38719110
635	Books - Watches	8.85544529
636	Camera - Watches	-9.28151697
637	Digital_Ebook_Purchase - Watches	-63.97577567
638	Digital_Music_Purchase - Watches	-17.42793638
639	Digital_Video_Download - Watches	-34.60423714
640	Electronics - Watches	-4.26948646
641	Furniture - Watches	0.10403444
642	Grocery - Watches	-1.35581127
643	Health & Personal Care - Watches	-4.18445687
644	Home - Watches	-7.60047390
645	Home Entertainment - Watches	-61.13180940
646	Home Improvement - Watches	-22.32983387
647	Kitchen - Watches	-6.94999345
648	Lawn and Garden - Watches	-8.44454812
649	Luggage - Watches	-1.10643317
650	Mobile_Apps - Watches	-55.12478373
651	Mobile_Electronics - Watches	3.84258064
652	Music - Watches	48.89021320
653	Musical Instruments - Watches	0.73093500
654	Office Products - Watches	-6.79029178
655	Outdoors - Watches	-16.98161510
656	PC - Watches	-41.90908531
657	Personal_Care_Appliances - Watches	-0.41108026
658	Pet Products - Watches	2.64362582
659	Shoes - Watches	-35.17113327
660	Software - Watches	5.85491318

661	Sports - Watches	9.02643251
662	Tools - Watches	-38.57603309
663	Toys - Watches	-29.33732392
664	Video - Watches	86.33471434
665	Video DVD - Watches	44.47058393
666	Video Games - Watches	-28.31845181
667	Apparel - Wireless	0.74829185
668	Automotive - Wireless	5.06977637
669	Baby - Wireless	-0.79508646
670	Beauty - Wireless	0.74668434
671	Books - Wireless	92.11264196
672	Camera - Wireless	45.58029752
673	Digital_Ebook_Purchase - Wireless	-12.74906748
674	Digital_Music_Purchase - Wireless	48.78942450
675	Digital_Video_Download - Wireless	29.41990452
676	Electronics - Wireless	47.48666981
677	Furniture - Wireless	4.35101673
678	Grocery - Wireless	0.53569489
679	Health & Personal Care - Wireless	11.44443203
680	Home - Wireless	24.17090755
681	Home Entertainment - Wireless	-18.96252166
682	Home Improvement - Wireless	6.08611132
683	Kitchen - Wireless	12.75597891
684	Lawn and Garden - Wireless	9.62120661
685	Luggage - Wireless	8.04840400
686	Mobile_Apps - Wireless	0.08336447
687	Mobile_Electronics - Wireless	9.57888558
688	Music - Wireless	150.09173871
689	Musical Instruments - Wireless	45.39096279
690	Office Products - Wireless	18.40024925
691	Outdoors - Wireless	5.20032822
692	PC - Wireless	12.29667284
693	Personal_Care_Appliances - Wireless	10.71259360
694	Pet Products - Wireless	5.66555242
695	Shoes - Wireless	0.98479937

696		Software - Wireless	11.90011395
697		Sports - Wireless	47.03423736
698		Tools - Wireless	-8.71687351
699		Toys - Wireless	30.52281750
700		Video - Wireless	174.76377368
701		Video DVD - Wireless	144.14987931
702		Video Games - Wireless	16.04020187
703		Watches - Wireless	45.67228448
	P.unadj	P.adj	
1	4.771707e-01	1.000000e+00	
2	4.011068e-01	1.000000e+00	
3	2.193893e-07	1.542306e-04	
4	8.319998e-01	1.000000e+00	
5	8.190501e-01	1.000000e+00	
6	4.193335e-01	1.000000e+00	
7	1.701351e-06	1.196049e-03	
8	7.221119e-45	5.076447e-42	
9	0.000000e+00	0.000000e+00	
10	3.782802e-03	1.000000e+00	
11	2.309846e-03	1.000000e+00	
12	3.398504e-15	2.389149e-12	
13	1.156921e-236	8.133156e-234	
14	7.951606e-02	1.000000e+00	
15	1.025531e-185	7.209486e-183	
16	1.302517e-01	1.000000e+00	
17	5.040658e-15	3.543583e-12	
18	9.902135e-11	6.961201e-08	
19	2.114020e-01	1.000000e+00	
20	0.000000e+00	0.000000e+00	
21	0.000000e+00	0.000000e+00	
22	1.458348e-02	1.000000e+00	
23	3.772301e-09	2.651928e-06	
24	2.854544e-208	2.006744e-205	
25	1.757848e-01	1.000000e+00	
26	0.000000e+00	0.000000e+00	

27	7.771143e-21	5.463114e-18
28	0.000000e+00	0.000000e+00
29	3.076038e-01	1.000000e+00
30	3.297544e-01	1.000000e+00
31	2.041090e-72	1.434886e-69
32	6.763186e-01	1.000000e+00
33	0.000000e+00	0.000000e+00
34	8.212554e-254	5.773426e-251
35	0.000000e+00	0.000000e+00
36	0.000000e+00	0.000000e+00
37	3.978744e-04	2.797057e-01
38	2.082571e-21	1.464047e-18
39	3.286861e-276	2.310663e-273
40	3.752692e-02	1.000000e+00
41	2.858537e-71	2.009551e-68
42	3.569287e-08	2.509209e-05
43	0.000000e+00	0.000000e+00
44	1.367034e-50	9.610252e-48
45	1.657682e-291	1.165350e-288
46	5.906417e-03	1.000000e+00
47	3.347351e-03	1.000000e+00
48	9.747137e-06	6.852237e-03
49	4.705074e-02	1.000000e+00
50	5.621306e-01	1.000000e+00
51	3.344714e-01	1.000000e+00
52	4.707854e-07	3.309621e-04
53	1.312860e-01	1.000000e+00
54	5.459944e-03	1.000000e+00
55	6.016808e-01	1.000000e+00
56	8.246535e-01	1.000000e+00
57	9.562872e-01	1.000000e+00
58	5.667388e-01	1.000000e+00
59	9.418144e-01	1.000000e+00
60	9.671697e-02	1.000000e+00
61	3.307058e-01	1.000000e+00

62	4.015532e-01	1.000000e+00
63	4.646201e-01	1.000000e+00
64	8.677412e-01	1.000000e+00
65	2.420468e-01	1.000000e+00
66	1.998972e-01	1.000000e+00
67	9.058176e-03	1.000000e+00
68	1.658760e-06	1.166109e-03
69	9.701050e-30	6.819838e-27
70	1.312195e-01	1.000000e+00
71	4.237323e-12	2.978838e-09
72	2.773940e-01	1.000000e+00
73	6.143062e-46	4.318573e-43
74	3.498118e-01	1.000000e+00
75	1.079982e-08	7.592272e-06
76	6.778447e-03	1.000000e+00
77	2.231734e-01	1.000000e+00
78	4.029342e-01	1.000000e+00
79	5.436167e-03	1.000000e+00
80	7.944426e-11	5.584931e-08
81	9.028807e-103	6.347251e-100
82	1.127859e-01	1.000000e+00
83	9.438224e-49	6.635072e-46
84	9.212359e-02	1.000000e+00
85	9.096059e-225	6.394529e-222
86	8.541041e-03	1.000000e+00
87	7.061388e-40	4.964156e-37
88	8.198495e-07	5.763542e-04
89	2.385455e-01	1.000000e+00
90	3.823708e-01	1.000000e+00
91	8.015573e-01	1.000000e+00
92	2.051518e-02	1.000000e+00
93	1.871165e-25	1.315429e-22
94	8.481958e-36	5.962816e-33
95	7.510020e-02	1.000000e+00
96	0.000000e+00	0.000000e+00

97	0.000000e+00	0.000000e+00
98	4.012250e-43	2.820612e-40
99	0.000000e+00	0.000000e+00
100	0.000000e+00	0.000000e+00
101	0.000000e+00	0.000000e+00
102	8.900126e-09	6.256789e-06
103	2.464568e-01	1.000000e+00
104	3.859395e-62	2.713155e-59
105	5.845580e-268	4.109443e-265
106	8.314013e-01	1.000000e+00
107	1.045474e-01	1.000000e+00
108	3.650358e-09	2.566202e-06
109	9.109708e-01	1.000000e+00
110	4.141438e-211	2.911431e-208
111	8.701907e-72	6.117441e-69
112	8.807057e-32	6.191361e-29
113	3.951841e-50	2.778144e-47
114	4.740993e-08	3.332918e-05
115	6.844345e-94	4.811575e-91
116	5.262930e-04	3.699840e-01
117	8.786230e-01	1.000000e+00
118	4.195871e-14	2.949697e-11
119	1.384236e-38	9.731181e-36
120	6.331579e-58	4.451100e-55
121	2.496661e-02	1.000000e+00
122	2.368843e-05	1.665297e-02
123	2.529101e-35	1.777958e-32
124	2.127269e-01	1.000000e+00
125	8.874342e-27	6.238663e-24
126	1.678351e-03	1.000000e+00
127	8.620799e-61	6.060422e-58
128	5.424114e-01	1.000000e+00
129	3.349407e-08	2.354633e-05
130	2.384638e-07	1.676400e-04
131	1.090554e-01	1.000000e+00

132	5.015544e-01	1.000000e+00
133	2.636171e-01	1.000000e+00
134	6.015893e-02	1.000000e+00
135	2.058155e-83	1.446883e-80
136	2.936902e-14	2.064642e-11
137	8.856249e-02	1.000000e+00
138	8.005204e-03	1.000000e+00
139	2.126716e-21	1.495082e-18
140	3.734827e-01	1.000000e+00
141	8.254117e-33	5.802644e-30
142	6.543907e-07	4.600367e-04
143	5.745047e-38	4.038768e-35
144	7.150879e-03	1.000000e+00
145	3.719672e-03	1.000000e+00
146	8.973218e-12	6.308172e-09
147	3.850490e-02	1.000000e+00
148	6.479885e-01	1.000000e+00
149	1.350655e-02	1.000000e+00
150	2.631394e-04	1.849870e-01
151	2.482987e-55	1.745540e-52
152	1.458924e-07	1.025623e-04
153	1.131536e-01	1.000000e+00
154	2.250652e-03	1.000000e+00
155	5.066613e-06	3.561829e-03
156	4.510950e-16	3.171198e-13
157	5.714105e-02	1.000000e+00
158	9.199320e-03	1.000000e+00
159	4.573431e-01	1.000000e+00
160	1.006426e-21	7.075173e-19
161	5.449449e-02	1.000000e+00
162	2.910173e-06	2.045852e-03
163	8.321436e-01	1.000000e+00
164	5.724618e-01	1.000000e+00
165	2.698295e-01	1.000000e+00
166	2.299141e-01	1.000000e+00

167	2.352685e-01	1.000000e+00
168	1.752888e-28	1.232280e-25
169	2.006058e-09	1.410259e-06
170	4.462144e-02	1.000000e+00
171	3.492016e-03	1.000000e+00
172	4.565198e-01	1.000000e+00
173	2.516885e-07	1.769370e-04
174	3.359782e-01	1.000000e+00
175	4.569018e-01	1.000000e+00
176	0.000000e+00	0.000000e+00
177	0.000000e+00	0.000000e+00
178	0.000000e+00	0.000000e+00
179	0.000000e+00	0.000000e+00
180	0.000000e+00	0.000000e+00
181	0.000000e+00	0.000000e+00
182	1.345894e-05	9.461635e-03
183	5.934376e-01	1.000000e+00
184	2.369192e-31	1.665542e-28
185	1.242462e-152	8.734507e-150
186	1.716014e-159	1.206358e-156
187	7.209992e-11	5.068624e-08
188	2.061570e-39	1.449284e-36
189	6.548298e-23	4.603454e-20
190	5.953295e-16	4.185166e-13
191	2.695490e-08	1.894930e-05
192	1.577564e-13	1.109028e-10
193	5.261344e-22	3.698725e-19
194	7.778521e-05	5.468300e-02
195	3.286247e-03	1.000000e+00
196	5.324420e-07	3.743067e-04
197	6.866515e-26	4.827160e-23
198	8.588204e-09	6.037508e-06
199	7.888724e-14	5.545773e-11
200	1.018707e-05	7.161513e-03
201	2.669920e-02	1.000000e+00



202	1.249054e-02	1.000000e+00
203	3.296117e-07	2.317171e-04
204	1.472297e-07	1.035025e-04
205	1.946571e-30	1.368439e-27
206	9.357138e-17	6.578068e-14
207	1.111313e-08	7.812528e-06
208	2.997489e-10	2.107235e-07
209	1.077542e-04	7.575123e-02
210	8.256026e-22	5.803986e-19
211	1.599831e-16	1.124681e-13
212	5.429218e-150	3.816740e-147
213	0.000000e+00	0.000000e+00
214	2.284301e-07	1.605863e-04
215	0.000000e+00	0.000000e+00
216	0.000000e+00	0.000000e+00
217	0.000000e+00	0.000000e+00
218	0.000000e+00	0.000000e+00
219	0.000000e+00	0.000000e+00
220	0.000000e+00	0.000000e+00
221	2.447018e-04	1.720254e-01
222	2.403829e-03	1.000000e+00
223	6.750883e-77	4.745871e-74
224	0.000000e+00	0.000000e+00
225	0.000000e+00	0.000000e+00
226	0.000000e+00	0.000000e+00
227	4.727632e-145	3.323525e-142
228	3.183823e-144	2.238228e-141
229	1.396174e-20	9.815103e-18
230	0.000000e+00	0.000000e+00
231	2.193385e-01	1.000000e+00
232	4.248741e-05	2.986865e-02
233	4.704167e-29	3.307029e-26
234	2.662712e-289	1.871887e-286
235	1.442908e-02	1.000000e+00
236	4.907032e-14	3.449644e-11

237	4.192815e-23	2.947549e-20
238	0.000000e+00	0.000000e+00
239	4.113075e-71	2.891492e-68
240	3.231099e-259	2.271463e-256
241	6.377564e-07	4.483428e-04
242	9.812504e-01	1.000000e+00
243	1.640227e-01	1.000000e+00
244	8.050442e-06	5.659460e-03
245	6.507058e-16	4.574462e-13
246	0.000000e+00	0.000000e+00
247	1.580671e-113	1.111212e-110
248	3.260841e-13	2.292371e-10
249	2.159727e-18	1.518288e-15
250	2.012814e-01	1.000000e+00
251	0.000000e+00	0.000000e+00
252	1.894721e-04	1.331989e-01
253	0.000000e+00	0.000000e+00
254	8.233324e-03	1.000000e+00
255	8.698599e-09	6.115115e-06
256	1.626042e-66	1.143108e-63
257	1.331514e-01	1.000000e+00
258	1.793600e-32	1.260901e-29
259	4.774305e-02	1.000000e+00
260	4.787359e-124	3.365513e-121
261	1.804891e-01	1.000000e+00
262	6.437004e-21	4.525214e-18
263	4.956861e-06	3.484674e-03
264	2.006275e-01	1.000000e+00
265	4.096736e-01	1.000000e+00
266	9.089835e-01	1.000000e+00
267	5.841836e-01	1.000000e+00
268	4.006955e-159	2.816889e-156
269	7.487580e-27	5.263768e-24
270	1.900508e-01	1.000000e+00
271	2.743949e-03	1.000000e+00

272	1.666513e-01	1.000000e+00
273	1.927139e-83	1.354779e-80
274	8.747044e-08	6.149172e-05
275	1.341624e-216	9.431619e-214
276	6.071211e-13	4.268061e-10
277	7.447659e-01	1.000000e+00
278	2.441003e-01	1.000000e+00
279	1.603807e-07	1.127476e-04
280	9.719233e-01	1.000000e+00
281	2.842484e-110	1.998266e-107
282	3.820800e-39	2.686022e-36
283	2.348540e-20	1.651024e-17
284	9.719293e-26	6.832663e-23
285	5.653403e-04	3.974342e-01
286	1.327396e-52	9.331591e-50
287	8.372429e-04	5.885818e-01
288	9.153385e-01	1.000000e+00
289	2.473598e-11	1.738940e-08
290	8.638794e-25	6.073072e-22
291	2.231542e-37	1.568774e-34
292	6.374189e-01	1.000000e+00
293	1.176944e-10	8.273915e-08
294	1.003979e-05	7.057974e-03
295	2.059100e-08	1.447547e-05
296	6.854985e-08	4.819055e-05
297	6.906641e-16	4.855369e-13
298	0.000000e+00	0.000000e+00
299	4.997119e-67	3.512975e-64
300	1.129941e-18	7.943482e-16
301	9.163310e-01	1.000000e+00
302	2.867086e-02	1.000000e+00
303	3.770318e-18	2.650534e-15
304	8.534509e-01	1.000000e+00
305	0.000000e+00	0.000000e+00
306	0.000000e+00	0.000000e+00

307	0.000000e+00	0.000000e+00
308	0.000000e+00	0.000000e+00
309	1.526867e-128	1.073388e-125
310	0.000000e+00	0.000000e+00
311	3.269526e-04	2.298477e-01
312	8.441143e-01	1.000000e+00
313	2.513005e-18	1.766643e-15
314	1.664921e-83	1.170439e-80
315	3.904503e-275	2.744866e-272
316	4.674993e-01	1.000000e+00
317	7.791212e-21	5.477222e-18
318	1.157755e-10	8.139020e-08
319	1.258817e-10	8.849482e-08
320	2.236234e-114	1.572072e-111
321	1.070060e-17	7.522525e-15
322	0.000000e+00	0.000000e+00
323	0.000000e+00	0.000000e+00
324	3.217486e-46	2.261892e-43
325	2.630542e-01	1.000000e+00
326	4.064136e-04	2.857088e-01
327	1.462015e-09	1.027796e-06
328	7.574926e-27	5.325173e-24
329	2.852161e-02	1.000000e+00
330	2.601234e-02	1.000000e+00
331	6.565606e-02	1.000000e+00
332	1.801527e-36	1.266473e-33
333	1.016335e-03	7.144834e-01
334	3.050297e-11	2.144359e-08
335	4.979070e-01	1.000000e+00
336	8.056356e-01	1.000000e+00
337	2.047645e-01	1.000000e+00
338	3.099122e-02	1.000000e+00
339	1.996718e-02	1.000000e+00
340	6.479622e-47	4.555174e-44
341	6.893369e-16	4.846038e-13

342	1.450849e-03	1.000000e+00
343	2.498616e-05	1.756527e-02
344	5.479365e-01	1.000000e+00
345	3.352075e-27	2.356509e-24
346	2.823245e-04	1.984742e-01
347	2.960754e-25	2.081410e-22
348	5.357264e-01	1.000000e+00
349	1.180685e-02	1.000000e+00
350	7.234388e-14	5.085775e-11
351	1.782110e-18	1.252823e-15
352	1.145553e-05	8.053240e-03
353	3.333595e-06	2.343517e-03
354	1.082674e-08	7.611202e-06
355	3.630398e-04	2.552170e-01
356	3.066276e-02	1.000000e+00
357	1.122319e-03	7.889901e-01
358	7.588154e-10	5.334472e-07
359	2.668760e-04	1.876138e-01
360	5.420036e-06	3.810285e-03
361	3.258389e-03	1.000000e+00
362	3.593008e-02	1.000000e+00
363	1.062076e-02	1.000000e+00
364	6.522900e-04	4.585599e-01
365	6.626442e-04	4.658389e-01
366	2.726421e-11	1.916674e-08
367	4.745473e-07	3.336068e-04
368	2.185727e-04	1.536566e-01
369	5.592648e-05	3.931632e-02
370	4.167698e-03	1.000000e+00
371	1.459158e-08	1.025788e-05
372	5.870889e-01	1.000000e+00
373	9.736912e-01	1.000000e+00
374	9.708835e-03	1.000000e+00
375	5.160220e-04	3.627635e-01
376	7.620384e-07	5.357130e-04

377	2.951257e-07	2.074734e-04
378	7.684467e-03	1.000000e+00
379	5.277164e-01	1.000000e+00
380	6.508967e-06	4.575804e-03
381	1.458211e-01	1.000000e+00
382	5.027575e-01	1.000000e+00
383	0.000000e+00	0.000000e+00
384	5.872026e-220	4.128034e-217
385	3.289248e-18	2.312341e-15
386	3.119636e-191	2.193104e-188
387	3.339170e-60	2.347436e-57
388	3.379739e-259	2.375957e-256
389	2.259347e-05	1.588321e-02
390	6.242418e-01	1.000000e+00
391	1.148133e-26	8.071375e-24
392	3.915729e-93	2.752758e-90
393	8.253993e-48	5.802557e-45
394	1.836633e-06	1.291153e-03
395	3.161082e-31	2.222241e-28
396	1.892932e-18	1.330731e-15
397	1.043444e-14	7.335411e-12
398	2.759831e-01	1.000000e+00
399	5.653110e-21	3.974136e-18
400	0.000000e+00	0.000000e+00
401	6.583911e-273	4.628489e-270
402	9.209259e-60	6.474109e-57
403	1.498474e-05	1.053427e-02
404	4.601706e-12	3.234999e-09
405	1.050868e-24	7.387602e-22
406	2.331845e-08	1.639287e-05
407	1.021376e-11	7.180274e-09
408	3.797813e-21	2.669863e-18
409	6.350592e-33	4.464466e-30
410	1.324446e-06	9.310858e-04
411	8.787583e-07	6.177671e-04

412	1.291612e-12	9.080029e-10
413	4.473367e-38	3.144777e-35
414	3.229464e-15	2.270313e-12
415	3.341982e-22	2.349413e-19
416	1.045417e-10	7.349281e-08
417	9.536420e-04	6.704103e-01
418	2.254551e-03	1.000000e+00
419	1.817729e-12	1.277864e-09
420	2.432418e-13	1.709990e-10
421	7.559323e-44	5.314204e-41
422	6.318327e-26	4.441784e-23
423	9.948158e-15	6.993555e-12
424	7.661771e-17	5.386225e-14
425	3.010465e-08	2.116357e-05
426	8.604981e-33	6.049302e-30
427	2.096011e-01	1.000000e+00
428	5.971547e-01	1.000000e+00
429	9.565286e-09	6.724396e-06
430	1.373525e-13	9.655883e-11
431	1.299879e-24	9.138152e-22
432	2.255216e-27	1.585417e-24
433	7.225156e-08	5.079285e-05
434	7.903426e-01	1.000000e+00
435	1.378672e-31	9.692067e-29
436	1.312728e-07	9.228474e-05
437	2.505608e-49	1.761443e-46
438	0.000000e+00	0.000000e+00
439	1.227981e-03	8.632707e-01
440	4.864868e-06	3.420002e-03
441	5.127458e-69	3.604603e-66
442	0.000000e+00	0.000000e+00
443	6.573363e-131	4.621074e-128
444	5.479763e-305	3.852273e-302
445	7.947375e-40	5.587004e-37
446	2.970866e-01	1.000000e+00

```

447 6.183002e-02 1.000000e+00
448 4.722784e-16 3.320117e-13
449 1.138361e-45 8.002679e-43
450 0.000000e+00 0.000000e+00
451 1.124393e-164 7.904481e-162
452 2.384985e-31 1.676645e-28
453 2.389138e-37 1.679564e-34
454 4.072878e-04 2.863233e-01
455 0.000000e+00 0.000000e+00
456 2.225376e-02 1.000000e+00
457 2.626519e-144 1.846443e-141
458 1.213937e-16 8.533975e-14
459 1.063107e-35 7.473643e-33
460 4.850663e-104 3.410016e-101
461 0.000000e+00 0.000000e+00
462 8.235696e-04 5.789694e-01
463 6.817900e-02 1.000000e+00
464 0.000000e+00 0.000000e+00
465 2.580084e-05 1.813799e-02
466 4.787667e-02 1.000000e+00
467 4.667065e-18 3.280946e-15
468 3.995214e-12 2.808635e-09
469 1.184774e-01 1.000000e+00
470 0.000000e+00 0.000000e+00
471 4.598876e-274 3.233010e-271
472 2.179779e-04 1.532384e-01
473 3.308679e-244 2.326002e-241
474 3.613155e-118 2.540048e-115
475 0.000000e+00 0.000000e+00
476 5.591132e-08 3.930566e-05
477 3.036007e-01 1.000000e+00
478 8.105083e-48 5.697874e-45
479 4.688088e-145 3.295726e-142
480 2.221461e-02 1.000000e+00
481 2.075494e-29 1.459073e-26

```



482	8.387400e-59	5.896343e-56
483	1.474201e-39	1.036364e-36
484	2.144590e-24	1.507647e-21
485	8.318876e-22	5.848170e-19
486	5.397656e-28	3.794552e-25
487	0.000000e+00	0.000000e+00
488	0.000000e+00	0.000000e+00
489	9.824352e-101	6.906520e-98
490	1.424382e-22	1.001341e-19
491	1.532826e-54	1.077577e-51
492	1.756421e-39	1.234764e-36
493	1.218556e-10	8.566449e-08
494	1.275554e-16	8.967142e-14
495	1.502452e-40	1.056224e-37
496	0.000000e+00	0.000000e+00
497	1.878071e-01	1.000000e+00
498	4.591542e-02	1.000000e+00
499	7.187906e-89	5.053098e-86
500	5.397915e-01	1.000000e+00
501	0.000000e+00	0.000000e+00
502	2.508406e-146	1.763409e-143
503	0.000000e+00	0.000000e+00
504	3.445770e-150	2.422377e-147
505	7.820721e-18	5.497967e-15
506	1.199590e-189	8.433117e-187
507	1.199409e-02	1.000000e+00
508	7.759819e-01	1.000000e+00
509	2.690715e-06	1.891573e-03
510	7.193609e-27	5.057107e-24
511	0.000000e+00	0.000000e+00
512	2.531388e-13	1.779565e-10
513	2.644716e-05	1.859235e-02
514	8.604198e-02	1.000000e+00
515	4.231639e-05	2.974842e-02
516	0.000000e+00	0.000000e+00

```

517 1.167741e-12 8.209221e-10
518 0.000000e+00 0.000000e+00
519 1.384255e-189 9.731313e-187
520 3.244129e-14 2.280623e-11
521 1.067404e-06 7.503852e-04
522 7.961451e-135 5.596900e-132
523 3.075134e-09 2.161819e-06
524 1.309711e-05 9.207268e-03
525 4.859080e-76 3.415933e-73
526 1.336698e-20 9.396986e-18
527 1.519228e-246 1.068017e-243
528 1.126506e-134 7.919336e-132
529 9.776302e-36 6.872740e-33
530 0.000000e+00 0.000000e+00
531 0.000000e+00 0.000000e+00
532 1.675633e-15 1.177970e-12
533 0.000000e+00 0.000000e+00
534 0.000000e+00 0.000000e+00
535 0.000000e+00 0.000000e+00
536 0.000000e+00 0.000000e+00
537 0.000000e+00 0.000000e+00
538 0.000000e+00 0.000000e+00
539 9.667928e-14 6.796554e-11
540 2.378384e-06 1.672004e-03
541 1.370143e-230 9.632105e-228
542 0.000000e+00 0.000000e+00
543 0.000000e+00 0.000000e+00
544 0.000000e+00 0.000000e+00
545 0.000000e+00 0.000000e+00
546 0.000000e+00 0.000000e+00
547 4.415852e-68 3.104344e-65
548 0.000000e+00 0.000000e+00
549 2.521395e-10 1.772541e-07
550 0.000000e+00 0.000000e+00
551 0.000000e+00 0.000000e+00

```

552	0.000000e+00	0.000000e+00
553	0.000000e+00	0.000000e+00
554	0.000000e+00	0.000000e+00
555	3.022732e-91	2.124981e-88
556	6.513613e-03	1.000000e+00
557	0.000000e+00	0.000000e+00
558	1.293551e-06	9.093663e-04
559	0.000000e+00	0.000000e+00
560	0.000000e+00	0.000000e+00
561	0.000000e+00	0.000000e+00
562	3.858265e-15	2.712360e-12
563	4.388924e-135	3.085414e-132
564	0.000000e+00	0.000000e+00
565	8.730018e-07	6.137203e-04
566	0.000000e+00	0.000000e+00
567	0.000000e+00	0.000000e+00
568	0.000000e+00	0.000000e+00
569	0.000000e+00	0.000000e+00
570	0.000000e+00	0.000000e+00
571	0.000000e+00	0.000000e+00
572	8.987055e-04	6.317900e-01
573	3.968724e-03	1.000000e+00
574	1.030992e-66	7.247871e-64
575	1.659386e-307	1.166548e-304
576	0.000000e+00	0.000000e+00
577	0.000000e+00	0.000000e+00
578	5.391683e-127	3.790353e-124
579	1.003825e-127	7.056891e-125
580	1.252904e-17	8.807919e-15
581	0.000000e+00	0.000000e+00
582	4.475389e-01	1.000000e+00
583	3.331338e-221	2.341930e-218
584	0.000000e+00	0.000000e+00
585	8.628468e-188	6.065813e-185
586	0.000000e+00	0.000000e+00

587	0.000000e+00	0.000000e+00
588	2.897447e-21	2.036905e-18
589	8.306770e-01	1.000000e+00
590	0.000000e+00	0.000000e+00
591	3.067263e-01	1.000000e+00
592	2.704992e-109	1.901610e-106
593	0.000000e+00	0.000000e+00
594	0.000000e+00	0.000000e+00
595	0.000000e+00	0.000000e+00
596	4.337684e-01	1.000000e+00
597	8.790208e-01	1.000000e+00
598	2.306278e-37	1.621313e-34
599	7.930906e-01	1.000000e+00
600	0.000000e+00	0.000000e+00
601	6.785294e-125	4.770061e-122
602	1.680505e-202	1.181395e-199
603	4.126590e-95	2.900993e-92
604	1.929910e-03	1.000000e+00
605	8.237891e-163	5.791237e-160
606	2.864769e-03	1.000000e+00
607	9.417267e-01	1.000000e+00
608	2.719272e-10	1.911648e-07
609	3.174968e-39	2.232002e-36
610	6.792909e-235	4.775415e-232
611	5.601424e-04	3.937801e-01
612	4.831525e-10	3.396562e-07
613	2.392840e-04	1.682166e-01
614	3.777305e-07	2.655446e-04
615	5.724088e-91	4.024034e-88
616	1.122655e-14	7.892266e-12
617	0.000000e+00	0.000000e+00
618	9.531415e-179	6.700585e-176
619	5.293007e-23	3.720984e-20
620	3.348999e-02	1.000000e+00
621	3.910762e-16	2.749266e-13

622	1.336710e-12	9.397073e-10
623	2.708558e-06	1.904116e-03
624	1.189484e-29	8.362071e-27
625	2.687582e-23	1.889370e-20
626	1.158188e-239	8.142059e-237
627	1.712716e-76	1.204040e-73
628	8.279497e-11	5.820486e-08
629	0.000000e+00	0.000000e+00
630	0.000000e+00	0.000000e+00
631	6.216915e-05	4.370491e-02
632	9.213375e-28	6.477003e-25
633	1.754867e-287	1.233671e-284
634	1.697766e-02	1.000000e+00
635	8.335040e-19	5.859533e-16
636	1.670825e-20	1.174590e-17
637	0.000000e+00	0.000000e+00
638	5.064076e-68	3.560045e-65
639	2.181646e-262	1.533697e-259
640	1.959235e-05	1.377342e-02
641	9.171420e-01	1.000000e+00
642	1.751592e-01	1.000000e+00
643	2.858487e-05	2.009516e-02
644	2.950483e-14	2.074189e-11
645	0.000000e+00	0.000000e+00
646	1.896309e-110	1.333105e-107
647	3.653032e-12	2.568081e-09
648	3.052238e-17	2.145724e-14
649	2.685391e-01	1.000000e+00
650	0.000000e+00	0.000000e+00
651	1.217474e-04	8.558842e-02
652	0.000000e+00	0.000000e+00
653	4.648189e-01	1.000000e+00
654	1.119070e-11	7.867061e-09
655	1.123512e-64	7.898289e-62
656	0.000000e+00	0.000000e+00

657	6.810137e-01	1.000000e+00
658	8.202328e-03	1.000000e+00
659	5.525804e-271	3.884640e-268
660	4.772593e-09	3.355133e-06
661	1.773595e-19	1.246837e-16
662	0.000000e+00	0.000000e+00
663	3.467677e-189	2.437777e-186
664	0.000000e+00	0.000000e+00
665	0.000000e+00	0.000000e+00
666	2.048426e-176	1.440044e-173
667	4.542841e-01	1.000000e+00
668	3.982834e-07	2.799932e-04
669	4.265632e-01	1.000000e+00
670	4.552541e-01	1.000000e+00
671	0.000000e+00	0.000000e+00
672	0.000000e+00	0.000000e+00
673	3.154966e-37	2.217941e-34
674	0.000000e+00	0.000000e+00
675	3.056168e-190	2.148486e-187
676	0.000000e+00	0.000000e+00
677	1.355077e-05	9.526192e-03
678	5.921694e-01	1.000000e+00
679	2.507412e-30	1.762711e-27
680	4.501657e-129	3.164665e-126
681	3.480499e-80	2.446791e-77
682	1.156860e-09	8.132727e-07
683	2.887248e-37	2.029736e-34
684	6.506340e-22	4.573957e-19
685	8.388066e-16	5.896811e-13
686	9.335617e-01	1.000000e+00
687	9.809767e-22	6.896266e-19
688	0.000000e+00	0.000000e+00
689	0.000000e+00	0.000000e+00
690	1.307619e-75	9.192563e-73
691	1.989369e-07	1.398526e-04
692	9.438237e-35	6.635081e-32
693	8.883748e-27	6.245275e-24
694	1.465516e-08	1.030258e-05
695	3.247226e-01	1.000000e+00
696	1.181857e-32	8.308452e-30
697	0.000000e+00	0.000000e+00
698	2.859893e-18	2.010505e-15
699	1.298005e-204	9.124976e-202
700	0.000000e+00	0.000000e+00
701	0.000000e+00	0.000000e+00
702	6.693643e-58	4.705631e-55
703	0.000000e+00	0.000000e+00

```
> dunnTest(review_length~product_category,data=amz_rev_global.fil,method="bonferroni")
Dunn (1964) Kruskal-Wallis multiple comparison
p-values adjusted with the Bonferroni method.
```

	Comparison	Z
1	Apparel - Automotive	-4.894885e+00
2	Apparel - Baby	-6.675617e+00
3	Automotive - Baby	-5.292341e+00
4	Apparel - Beauty	-7.956492e-01
5	Automotive - Beauty	2.357553e+00
6	Baby - Beauty	3.455943e+00
7	Apparel - Books	-1.003262e+01
8	Automotive - Books	-1.715658e+01
9	Baby - Books	-3.208070e+01
10	Beauty - Books	-5.650023e+00
11	Apparel - Camera	-8.031265e+00
12	Automotive - Camera	-1.005084e+01
13	Baby - Camera	-1.124747e+01
14	Beauty - Camera	-4.338619e+00
15	Books - Camera	3.332575e+01
16	Apparel - Digital_Ebook_Purchase	-4.575065e+00
17	Automotive - Digital_Ebook_Purchase	1.800191e+00
18	Baby - Digital_Ebook_Purchase	2.064734e+01
19	Beauty - Digital_Ebook_Purchase	-2.058372e+00
20	Books - Digital_Ebook_Purchase	3.982836e+02
21	Camera - Digital_Ebook_Purchase	5.836945e+01
22	Apparel - Digital_Music_Purchase	-4.254441e+00
23	Automotive - Digital_Music_Purchase	2.896715e+00
24	Baby - Digital_Music_Purchase	2.299643e+01
25	Beauty - Digital_Music_Purchase	-1.848066e+00
26	Books - Digital_Music_Purchase	1.943035e+02
27	Camera - Digital_Music_Purchase	5.825742e+01
28	Digital_Ebook_Purchase - Digital_Music_Purchase	1.088817e+01
29	Apparel - Digital_Video_Download	-5.634341e-01
30	Automotive - Digital_Video_Download	1.573303e+01

31	Baby - Digital_Video_Download	5.934259e+01
32	Beauty - Digital_Video_Download	5.816584e-01
33	Books - Digital_Video_Download	6.384033e+02
34	Camera - Digital_Video_Download	1.252848e+02
35	Digital_Ebook_Purchase - Digital_Video_Download	2.871170e+02
36	Digital_Music_Purchase - Digital_Video_Download	1.236766e+02
37	Apparel - Electronics	-9.633039e+00
38	Automotive - Electronics	-1.542442e+01
39	Baby - Electronics	-2.379863e+01
40	Beauty - Electronics	-5.396217e+00
41	Books - Electronics	5.450548e+00
42	Camera - Electronics	-1.784584e+01
43	Digital_Ebook_Purchase - Electronics	-7.353415e+01
44	Digital_Music_Purchase - Electronics	-7.301027e+01
45	Digital_Video_Download - Electronics	-1.311593e+02
46	Apparel - Furniture	-4.619478e+00
47	Automotive - Furniture	-1.595576e+00
48	Baby - Furniture	-2.039639e-01
49	Beauty - Furniture	-2.908774e+00
50	Books - Furniture	2.757733e+00
51	Camera - Furniture	9.836017e-01
52	Digital_Ebook_Purchase - Furniture	-2.109345e+00
53	Digital_Music_Purchase - Furniture	-2.393291e+00
54	Digital_Video_Download - Furniture	-5.686795e+00
55	Electronics - Furniture	2.416656e+00
56	Apparel - Grocery	-1.929508e+00
57	Automotive - Grocery	-5.424669e-02
58	Baby - Grocery	5.867890e-01
59	Beauty - Grocery	-1.285824e+00
60	Books - Grocery	1.905636e+00
61	Camera - Grocery	1.116419e+00
62	Digital_Ebook_Purchase - Grocery	-2.602503e-01
63	Digital_Music_Purchase - Grocery	-3.868816e-01
64	Digital_Video_Download - Grocery	-1.852264e+00
65	Electronics - Grocery	1.755179e+00



66		Furniture - Grocery	6.198256e-01
67	Apparel - Health & Personal Care		-4.670657e+00
68	Automotive - Health & Personal Care		5.323992e-01
69	Baby - Health & Personal Care		5.835790e+00
70	Beauty - Health & Personal Care		-2.212385e+00
71	Books - Health & Personal Care		1.732875e+01
72	Camera - Health & Personal Care		1.045695e+01
73	Digital_Ebook_Purchase - Health & Personal Care		-1.000368e+00
74	Digital_Music_Purchase - Health & Personal Care		-2.064233e+00
75	Digital_Video_Download - Health & Personal Care		-1.447218e+01
76	Electronics - Health & Personal Care		1.566102e+01
77	Furniture - Health & Personal Care		1.782111e+00
78	Grocery - Health & Personal Care		1.410763e-01
79	Apparel - Home		-5.787614e+00
80	Automotive - Home		-2.349443e+00
81	Baby - Home		5.138616e+00
82	Beauty - Home		-2.879320e+00
83	Books - Home		3.105882e+01
84	Camera - Home		1.501399e+01
85	Digital_Ebook_Purchase - Home		-9.372669e+00
86	Digital_Music_Purchase - Home		-1.151995e+01
87	Digital_Video_Download - Home		-3.907244e+01
88	Electronics - Home		2.526301e+01
89	Furniture - Home		9.746944e-01
90	Grocery - Home		-2.412329e-01
91	Health & Personal Care - Home		-2.959719e+00
92	Apparel - Home Entertainment		-4.150827e+00
93	Automotive - Home Entertainment		3.187913e+00
94	Baby - Home Entertainment		2.159625e+01
95	Beauty - Home Entertainment		-1.782390e+00
96	Books - Home Entertainment		9.981064e+01
97	Camera - Home Entertainment		4.710193e+01
98	Digital_Ebook_Purchase - Home Entertainment		7.117316e+00
99	Digital_Music_Purchase - Home Entertainment		1.528451e+00
100	Digital_Video_Download - Home Entertainment		-6.099486e+01

101	Electronics - Home Entertainment	6.127429e+01
102	Furniture - Home Entertainment	2.478388e+00
103	Grocery - Home Entertainment	4.258033e-01
104	Health & Personal Care - Home Entertainment	2.359280e+00
105	Home - Home Entertainment	1.147642e+01
106	Apparel - Home Improvement	-4.391799e+00
107	Automotive - Home Improvement	2.025333e+00
108	Baby - Home Improvement	1.265270e+01
109	Beauty - Home Improvement	-1.959609e+00
110	Books - Home Improvement	3.794860e+01
111	Camera - Home Improvement	2.277195e+01
112	Digital_Ebook_Purchase - Home Improvement	9.246087e-01
113	Digital_Music_Purchase - Home Improvement	-1.222227e+00
114	Digital_Video_Download - Home Improvement	-2.628596e+01
115	Electronics - Home Improvement	3.215697e+01
116	Furniture - Home Improvement	2.211954e+00
117	Grocery - Home Improvement	3.137761e-01
118	Health & Personal Care - Home Improvement	1.307638e+00
119	Home - Home Improvement	7.026250e+00
120	Home Entertainment - Home Improvement	-1.779305e+00
121	Apparel - Kitchen	-6.758140e+00
122	Automotive - Kitchen	-4.990567e+00
123	Baby - Kitchen	-8.921550e-01
124	Beauty - Kitchen	-3.571486e+00
125	Books - Kitchen	1.334677e+01
126	Camera - Kitchen	4.634277e+00
127	Digital_Ebook_Purchase - Kitchen	-1.018495e+01
128	Digital_Music_Purchase - Kitchen	-1.148706e+01
129	Digital_Video_Download - Kitchen	-2.747576e+01
130	Electronics - Kitchen	1.124959e+01
131	Furniture - Kitchen	2.986562e-03
132	Grocery - Kitchen	-6.742226e-01
133	Health & Personal Care - Kitchen	-5.472556e+00
134	Home - Kitchen	-4.094841e+00
135	Home Entertainment - Kitchen	-1.163577e+01

136	Home Improvement - Kitchen	-9.102457e+00
137	Apparel - Lawn and Garden	-5.039182e+00
138	Automotive - Lawn and Garden	-2.746398e-01
139	Baby - Lawn and Garden	5.521994e+00
140	Beauty - Lawn and Garden	-2.435070e+00
141	Books - Lawn and Garden	1.903877e+01
142	Camera - Lawn and Garden	1.092935e+01
143	Digital_Ebook_Purchase - Lawn and Garden	-2.456303e+00
144	Digital_Music_Purchase - Lawn and Garden	-3.693567e+00
145	Digital_Video_Download - Lawn and Garden	-1.825420e+01
146	Electronics - Lawn and Garden	1.695919e+01
147	Furniture - Lawn and Garden	1.515018e+00
148	Grocery - Lawn and Garden	1.272580e-02
149	Health & Personal Care - Lawn and Garden	-8.329582e-01
150	Home - Lawn and Garden	2.231742e+00
151	Home Entertainment - Lawn and Garden	-4.000237e+00
152	Home Improvement - Lawn and Garden	-2.591017e+00
153	Kitchen - Lawn and Garden	5.059164e+00
154	Apparel - Luggage	-9.429449e+00
155	Automotive - Luggage	-9.331692e+00
156	Baby - Luggage	-7.405433e+00
157	Beauty - Luggage	-5.711715e+00
158	Books - Luggage	-1.125870e+00
159	Camera - Luggage	-4.939076e+00
160	Digital_Ebook_Purchase - Luggage	-1.167962e+01
161	Digital_Music_Purchase - Luggage	-1.228079e+01
162	Digital_Video_Download - Luggage	-1.943586e+01
163	Electronics - Luggage	-1.840175e+00
164	Furniture - Luggage	-2.975960e+00
165	Grocery - Luggage	-2.093110e+00
166	Health & Personal Care - Luggage	-9.625104e+00
167	Home - Luggage	-8.937855e+00
168	Home Entertainment - Luggage	-1.241104e+01
169	Home Improvement - Luggage	-1.148926e+01
170	Kitchen - Luggage	-6.491396e+00

171	Lawn and Garden - Luggage	-9.404363e+00
172	Apparel - Mobile_Apps	-5.052186e-01
173	Automotive - Mobile_Apps	1.593931e+01
174	Baby - Mobile_Apps	6.002265e+01
175	Beauty - Mobile_Apps	6.199828e-01
176	Books - Mobile_Apps	7.143700e+02
177	Camera - Mobile_Apps	1.270125e+02
178	Digital_Ebook_Purchase - Mobile_Apps	3.289396e+02
179	Digital_Music_Purchase - Mobile_Apps	1.287058e+02
180	Digital_Video_Download - Mobile_Apps	4.277225e+00
181	Electronics - Mobile_Apps	1.325819e+02
182	Furniture - Mobile_Apps	5.738817e+00
183	Grocery - Mobile_Apps	1.875378e+00
184	Health & Personal Care - Mobile_Apps	1.467120e+01
185	Home - Mobile_Apps	3.954936e+01
186	Home Entertainment - Mobile_Apps	6.236254e+01
187	Home Improvement - Mobile_Apps	2.670680e+01
188	Kitchen - Mobile_Apps	2.773764e+01
189	Lawn and Garden - Mobile_Apps	1.848955e+01
190	Luggage - Mobile_Apps	1.954999e+01
191	Apparel - Mobile_Electronics	-7.765297e+00
192	Automotive - Mobile_Electronics	-5.689271e+00
193	Baby - Mobile_Electronics	-4.042926e+00
194	Beauty - Mobile_Electronics	-4.993603e+00
195	Books - Mobile_Electronics	-7.507743e-02
196	Camera - Mobile_Electronics	-2.461876e+00
197	Digital_Ebook_Purchase - Mobile_Electronics	-6.644202e+00
198	Digital_Music_Purchase - Mobile_Electronics	-7.024796e+00
199	Digital_Video_Download - Mobile_Electronics	-1.147251e+01
200	Electronics - Mobile_Electronics	-5.277337e-01
201	Furniture - Mobile_Electronics	-2.260633e+00
202	Grocery - Mobile_Electronics	-1.833338e+00
203	Health & Personal Care - Mobile_Electronics	-5.917877e+00
204	Home - Mobile_Electronics	-5.056521e+00
205	Home Entertainment - Mobile_Electronics	-7.129751e+00



206	Home Improvement - Mobile_Electronics	-6.704347e+00
207	Kitchen - Mobile_Electronics	-3.661786e+00
208	Lawn and Garden - Mobile_Electronics	-5.637012e+00
209	Luggage - Mobile_Electronics	5.312877e-01
210	Mobile_Apps - Mobile_Electronics	-1.154295e+01
211	Apparel - Music	-1.010360e+01
212	Automotive - Music	-1.740462e+01
213	Baby - Music	-3.279166e+01
214	Beauty - Music	-5.696697e+00
215	Books - Music	-5.072415e+00
216	Camera - Music	-3.459808e+01
217	Digital_Ebook_Purchase - Music	-4.233626e+02
218	Digital_Music_Purchase - Music	-1.986348e+02
219	Digital_Video_Download - Music	-6.699708e+02
220	Electronics - Music	-6.485691e+00
221	Furniture - Music	-2.820972e+00
222	Grocery - Music	-1.933771e+00
223	Health & Personal Care - Music	-1.756854e+01
224	Home - Music	-3.159886e+01
225	Home Entertainment - Music	-1.012673e+02
226	Home Improvement - Music	-3.844477e+01
227	Kitchen - Music	-1.365458e+01
228	Lawn and Garden - Music	-1.932055e+01
229	Luggage - Music	9.888244e-01
230	Mobile_Apps - Music	-7.573263e+02
231	Mobile_Electronics - Music	-1.024893e-02
232	Apparel - Musical Instruments	-8.580213e+00
233	Automotive - Musical Instruments	-1.168768e+01
234	Baby - Musical Instruments	-1.396581e+01
235	Beauty - Musical Instruments	-4.708309e+00
236	Books - Musical Instruments	1.580277e+01
237	Camera - Musical Instruments	-5.328831e+00
238	Digital_Ebook_Purchase - Musical Instruments	-4.505387e+01
239	Digital_Music_Purchase - Musical Instruments	-4.663593e+01
240	Digital_Video_Download - Musical Instruments	-8.962433e+01

241	Electronics - Musical Instruments	9.259658e+00
242	Furniture - Musical Instruments	-1.487817e+00
243	Grocery - Musical Instruments	-1.341745e+00
244	Health & Personal Care - Musical Instruments	-1.204211e+01
245	Home - Musical Instruments	-1.718083e+01
246	Home Entertainment - Musical Instruments	-4.189673e+01
247	Home Improvement - Musical Instruments	-2.427641e+01
248	Kitchen - Musical Instruments	-6.754013e+00
249	Lawn and Garden - Musical Instruments	-1.270001e+01
250	Luggage - Musical Instruments	3.813816e+00
251	Mobile_Apps - Musical Instruments	-9.050921e+01
252	Mobile_Electronics - Musical Instruments	1.772760e+00
253	Music - Musical Instruments	1.661012e+01
254	Apparel - Office Products	-7.498480e+00
255	Automotive - Office Products	-7.464846e+00
256	Baby - Office Products	-4.415076e+00
257	Beauty - Office Products	-4.031535e+00
258	Books - Office Products	1.364456e+01
259	Camera - Office Products	2.307429e+00
260	Digital_Ebook_Purchase - Office Products	-1.715795e+01
261	Digital_Music_Purchase - Office Products	-1.875262e+01
262	Digital_Video_Download - Office Products	-3.978259e+01
263	Electronics - Office Products	1.075592e+01
264	Furniture - Office Products	-5.939803e-01
265	Grocery - Office Products	-9.436890e-01
266	Health & Personal Care - Office Products	-7.919408e+00
267	Home - Office Products	-7.984541e+00
268	Home Entertainment - Office Products	-1.856893e+01
269	Home Improvement - Office Products	-1.380462e+01
270	Kitchen - Office Products	-2.324508e+00
271	Lawn and Garden - Office Products	-7.811267e+00
272	Luggage - Office Products	5.490287e+00
273	Mobile_Apps - Office Products	-4.013804e+01
274	Mobile_Electronics - Office Products	2.920324e+00
275	Music - Office Products	1.404843e+01

276	Musical Instruments - Office Products	5.043580e+00
277	Apparel - Outdoors	-7.244843e+00
278	Automotive - Outdoors	-6.553080e+00
279	Baby - Outdoors	-3.014195e+00
280	Beauty - Outdoors	-3.875832e+00
281	Books - Outdoors	1.325253e+01
282	Camera - Outdoors	3.164224e+00
283	Digital_Ebook_Purchase - Outdoors	-1.409067e+01
284	Digital_Music_Purchase - Outdoors	-1.555448e+01
285	Digital_Video_Download - Outdoors	-3.417825e+01
286	Electronics - Outdoors	1.075930e+01
287	Furniture - Outdoors	-3.922854e-01
288	Grocery - Outdoors	-8.530611e-01
289	Health & Personal Care - Outdoors	-7.019203e+00
290	Home - Outdoors	-6.433215e+00
291	Home Entertainment - Outdoors	-1.555510e+01
292	Home Improvement - Outdoors	-1.190129e+01
293	Kitchen - Outdoors	-1.472735e+00
294	Lawn and Garden - Outdoors	-6.782676e+00
295	Luggage - Outdoors	5.824805e+00
296	Mobile_Apps - Outdoors	-3.448813e+01
297	Mobile_Electronics - Outdoors	3.169669e+00
298	Music - Outdoors	1.361058e+01
299	Musical Instruments - Outdoors	5.617042e+00
300	Office Products - Outdoors	8.535146e-01
301	Apparel - PC	-7.179103e+00
302	Automotive - PC	-7.207524e+00
303	Baby - PC	-4.327099e+00
304	Beauty - PC	-3.774001e+00
305	Books - PC	7.528959e+01
306	Camera - PC	1.245933e+01
307	Digital_Ebook_Purchase - PC	-6.953424e+01
308	Digital_Music_Purchase - PC	-6.383404e+01
309	Digital_Video_Download - PC	-1.744838e+02
310	Electronics - PC	3.186337e+01

311	Furniture	-	PC	-2.167844e-01
312	Grocery	-	PC	-7.748622e-01
313	Health & Personal Care	-	PC	-7.707294e+00
314	Home	-	PC	-9.637719e+00
315	Home Entertainment	-	PC	-4.421166e+01
316	Home Improvement	-	PC	-1.811847e+01
317	Kitchen	-	PC	-1.051427e+00
318	Lawn and Garden	-	PC	-7.744622e+00
319	Luggage	-	PC	6.620091e+00
320	Mobile_Apps	-	PC	-1.786526e+02
321	Mobile_Electronics	-	PC	3.501330e+00
322	Music	-	PC	7.763164e+01
323	Musical Instruments	-	PC	1.484762e+01
324	Office Products	-	PC	2.386442e+00
325	Outdoors	-	PC	1.004430e+00
326	Apparel	-	Personal_Care_Appliances	-9.829603e+00
327	Automotive	-	Personal_Care_Appliances	-1.089154e+01
328	Baby	-	Personal_Care_Appliances	-9.083608e+00
329	Beauty	-	Personal_Care_Appliances	-5.850788e+00
330	Books	-	Personal_Care_Appliances	-1.519627e+00
331	Camera	-	Personal_Care_Appliances	-6.145476e+00
332	Digital_Ebook_Purchase	-	Personal_Care_Appliances	-1.437616e+01
333	Digital_Music_Purchase	-	Personal_Care_Appliances	-1.509882e+01
334	Digital_Video_Download	-	Personal_Care_Appliances	-2.382404e+01
335	Electronics	-	Personal_Care_Appliances	-2.378832e+00
336	Furniture	-	Personal_Care_Appliances	-3.117369e+00
337	Grocery	-	Personal_Care_Appliances	-2.131654e+00
338	Health & Personal Care	-	Personal_Care_Appliances	-1.119905e+01
339	Home	-	Personal_Care_Appliances	-1.086649e+01
340	Home Entertainment	-	Personal_Care_Appliances	-1.522174e+01
341	Home Improvement	-	Personal_Care_Appliances	-1.389029e+01
342	Kitchen	-	Personal_Care_Appliances	-7.736395e+00
343	Lawn and Garden	-	Personal_Care_Appliances	-1.108131e+01
344	Luggage	-	Personal_Care_Appliances	-9.401148e-02
345	Mobile_Apps	-	Personal_Care_Appliances	-2.396399e+01



346	Mobile_Electronics - Personal_Care_Appliances	-6.246861e-01
347	Music - Personal_Care_Appliances	-1.352708e+00
348	Musical Instruments - Personal_Care_Appliances	-4.759144e+00
349	Office Products - Personal_Care_Appliances	-6.661956e+00
350	Outdoors - Personal_Care_Appliances	-7.017942e+00
351	PC - Personal_Care_Appliances	-8.203151e+00
352	Apparel - Pet Products	-3.911604e+00
353	Automotive - Pet Products	-1.380381e+00
354	Baby - Pet Products	-3.773379e-01
355	Beauty - Pet Products	-2.675059e+00
356	Books - Pet Products	1.727093e+00
357	Camera - Pet Products	4.669869e-01
358	Digital_Ebook_Purchase - Pet Products	-1.731512e+00
359	Digital_Music_Purchase - Pet Products	-1.933488e+00
360	Digital_Video_Download - Pet Products	-4.273709e+00
361	Electronics - Pet Products	1.486479e+00
362	Furniture - Pet Products	-1.896000e-01
363	Grocery - Pet Products	-6.984345e-01
364	Health & Personal Care - Pet Products	-1.516074e+00
365	Home - Pet Products	-9.268179e-01
366	Home Entertainment - Pet Products	-1.994740e+00
367	Home Improvement - Pet Products	-1.810022e+00
368	Kitchen - Pet Products	-2.322705e-01
369	Lawn and Garden - Pet Products	-1.319432e+00
370	Luggage - Pet Products	1.991910e+00
371	Mobile_Apps - Pet Products	-4.310644e+00
372	Mobile_Electronics - Pet Products	1.563248e+00
373	Music - Pet Products	1.772024e+00
374	Musical Instruments - Pet Products	8.266661e-01
375	Office Products - Pet Products	1.934964e-01
376	Outdoors - Pet Products	5.013622e-02
377	PC - Pet Products	-7.844569e-02
378	Personal_Care_Appliances - Pet Products	2.062668e+00
379	Apparel - Shoes	-5.718099e+00
380	Automotive - Shoes	-2.143898e+00

381	Baby - Shoes	6.695571e+00
382	Beauty - Shoes	-2.823297e+00
383	Books - Shoes	4.240133e+01
384	Camera - Shoes	1.973237e+01
385	Digital_Ebook_Purchase - Shoes	-1.160497e+01
386	Digital_Music_Purchase - Shoes	-1.428625e+01
387	Digital_Video_Download - Shoes	-5.125871e+01
388	Electronics - Shoes	3.212476e+01
389	Furniture - Shoes	1.060269e+00
390	Grocery - Shoes	-2.045548e-01
391	Health & Personal Care - Shoes	-2.781817e+00
392	Home - Shoes	5.527695e-01
393	Home Entertainment - Shoes	-1.369187e+01
394	Home Improvement - Shoes	-7.341701e+00
395	Kitchen - Shoes	4.711934e+00
396	Lawn and Garden - Shoes	-2.008344e+00
397	Luggage - Shoes	9.242265e+00
398	Mobile_Apps - Shoes	-5.194167e+01
399	Mobile_Electronics - Shoes	5.196344e+00
400	Music - Shoes	4.313906e+01
401	Musical Instruments - Shoes	2.133181e+01
402	Office Products - Shoes	9.178942e+00
403	Outdoors - Shoes	7.346657e+00
404	PC - Shoes	1.343554e+01
405	Personal_Care_Appliances - Shoes	1.130582e+01
406	Pet Products - Shoes	9.870417e-01
407	Apparel - Software	-9.586730e+00
408	Automotive - Software	-8.475414e+00
409	Baby - Software	-6.912687e+00
410	Beauty - Software	-6.286727e+00
411	Books - Software	-2.760608e+00
412	Camera - Software	-5.265902e+00
413	Digital_Ebook_Purchase - Software	-9.677552e+00
414	Digital_Music_Purchase - Software	-1.007639e+01
415	Digital_Video_Download - Software	-1.476137e+01

416	Electronics	- Software	-3.227208e+00
417	Furniture	- Software	-3.844203e+00
418	Grocery	- Software	-2.643549e+00
419	Health & Personal Care	- Software	-8.702284e+00
420	Home	- Software	-7.960441e+00
421	Home Entertainment	- Software	-1.017985e+01
422	Home Improvement	- Software	-9.684079e+00
423	Kitchen	- Software	-6.413730e+00
424	Lawn and Garden	- Software	-8.461187e+00
425	Luggage	- Software	-1.691917e+00
426	Mobile_Apps	- Software	-1.483566e+01
427	Mobile_Electronics	- Software	-1.846788e+00
428	Music	- Software	-2.670802e+00
429	Musical Instruments	- Software	-4.530279e+00
430	Office Products	- Software	-5.684520e+00
431	Outdoors	- Software	-5.927721e+00
432	PC	- Software	-6.365262e+00
433	Personal_Care_Appliances	- Software	-1.711280e+00
434	Pet Products	- Software	-2.779479e+00
435	Shoes	- Software	-8.127449e+00
436	Apparel	- Sports	-1.052015e+01
437	Automotive	- Sports	-1.774625e+01
438	Baby	- Sports	-2.517952e+01
439	Beauty	- Sports	-5.998839e+00
440	Books	- Sports	-4.835226e+00
441	Camera	- Sports	-1.977090e+01
442	Digital_Ebook_Purchase	- Sports	-5.237647e+01
443	Digital_Music_Purchase	- Sports	-5.375498e+01
444	Digital_Video_Download	- Sports	-8.721132e+01
445	Electronics	- Sports	-6.996255e+00
446	Furniture	- Sports	-3.236575e+00
447	Grocery	- Sports	-2.123975e+00
448	Health & Personal Care	- Sports	-1.792619e+01
449	Home	- Sports	-2.687607e+01
450	Home Entertainment	- Sports	-5.012684e+01

451	Home Improvement	- Sports	-3.300186e+01
452	Kitchen	- Sports	-1.412844e+01
453	Lawn and Garden	- Sports	-1.936521e+01
454	Luggage	- Sports	5.022910e-02
455	Mobile_Apps	- Sports	-8.785806e+01
456	Mobile_Electronics	- Sports	-5.882109e-01
457	Music	- Sports	-4.221098e+00
458	Musical Instruments	- Sports	-1.360752e+01
459	Office Products	- Sports	-1.411270e+01
460	Outdoors	- Sports	-1.392566e+01
461	PC	- Sports	-2.834840e+01
462	Personal_Care_Appliances	- Sports	2.035768e-01
463	Pet Products	- Sports	-2.073814e+00
464	Shoes	- Sports	-3.177959e+01
465	Software	- Sports	2.035277e+00
466	Apparel	- Tools	-4.202135e+00
467	Automotive	- Tools	2.710851e+00
468	Baby	- Tools	1.490769e+01
469	Beauty	- Tools	-1.829464e+00
470	Books	- Tools	4.442822e+01
471	Camera	- Tools	2.668262e+01
472	Digital_Ebook_Purchase	- Tools	2.590895e+00
473	Digital_Music_Purchase	- Tools	1.396879e-01
474	Digital_Video_Download	- Tools	-2.815838e+01
475	Electronics	- Tools	3.686332e+01
476	Furniture	- Tools	2.394551e+00
477	Grocery	- Tools	3.937539e-01
478	Health & Personal Care	- Tools	1.957020e+00
479	Home	- Tools	8.560645e+00
480	Home Entertainment	- Tools	-5.599817e-01
481	Home Improvement	- Tools	1.026536e+00
482	Kitchen	- Tools	1.015971e+01
483	Lawn and Garden	- Tools	3.371912e+00
484	Luggage	- Tools	1.196207e+01
485	Mobile_Apps	- Tools	-2.864013e+01



486	Mobile_Electronics - Tools	6.966292e+00
487	Music - Tools	4.499448e+01
488	Musical Instruments - Tools	2.775543e+01
489	Office Products - Tools	1.538140e+01
490	Outdoors - Tools	1.323301e+01
491	PC - Tools	2.181777e+01
492	Personal_Care_Appliances - Tools	1.450939e+01
493	Pet Products - Tools	1.938990e+00
494	Shoes - Tools	9.182124e+00
495	Software - Tools	9.971702e+00
496	Sports - Tools	3.666221e+01
497	Apparel - Toys	-4.317859e+00
498	Automotive - Toys	2.670118e+00
499	Baby - Toys	2.210261e+01
500	Beauty - Toys	-1.890117e+00
501	Books - Toys	1.657146e+02
502	Camera - Toys	5.531551e+01
503	Digital_Ebook_Purchase - Toys	7.476770e+00
504	Digital_Music_Purchase - Toys	-1.486311e+00
505	Digital_Video_Download - Toys	-1.086308e+02
506	Electronics - Toys	7.021542e+01
507	Furniture - Toys	2.335863e+00
508	Grocery - Toys	3.614373e-01
509	Health & Personal Care - Toys	1.846636e+00
510	Home - Toys	1.096571e+01
511	Home Entertainment - Toys	-2.436989e+00
512	Home Improvement - Toys	7.886195e-01
513	Kitchen - Toys	1.118122e+01
514	Lawn and Garden - Toys	3.434413e+00
515	Luggage - Toys	1.215010e+01
516	Mobile_Apps - Toys	-1.123110e+02
517	Mobile_Electronics - Toys	6.946154e+00
518	Music - Toys	1.690015e+02
519	Musical Instruments - Toys	4.516928e+01
520	Office Products - Toys	1.830806e+01

521	Outdoors - Toys	1.517916e+01
522	PC - Toys	5.835560e+01
523	Personal_Care_Appliances - Toys	1.493556e+01
524	Pet Products - Toys	1.892758e+00
525	Shoes - Toys	1.348477e+01
526	Software - Toys	9.992762e+00
527	Sports - Toys	5.263657e+01
528	Tools - Toys	-6.163661e-01
529	Apparel - Video	-1.547897e+01
530	Automotive - Video	-3.567585e+01
531	Baby - Video	-7.748989e+01
532	Beauty - Video	-9.240850e+00
533	Books - Video	-1.128874e+02
534	Camera - Video	-9.879591e+01
535	Digital_Ebook_Purchase - Video	-2.268714e+02
536	Digital_Music_Purchase - Video	-2.047588e+02
537	Digital_Video_Download - Video	-3.080757e+02
538	Electronics - Video	-7.017388e+01
539	Furniture - Video	-7.622980e+00
540	Grocery - Video	-4.072904e+00
541	Health & Personal Care - Video	-3.525439e+01
542	Home - Video	-6.767858e+01
543	Home Entertainment - Video	-1.515908e+02
544	Home Improvement - Video	-7.158309e+01
545	Kitchen - Video	-3.618941e+01
546	Lawn and Garden - Video	-3.990033e+01
547	Luggage - Video	-9.400060e+00
548	Mobile_Apps - Video	-3.120886e+02
549	Mobile_Electronics - Video	-6.490190e+00
550	Music - Video	-1.118350e+02
551	Musical Instruments - Video	-6.817156e+01
552	Office Products - Video	-4.303483e+01
553	Outdoors - Video	-3.957398e+01
554	PC - Video	-1.392843e+02
555	Personal_Care_Appliances - Video	-1.128174e+01

556	Pet Products - Video	-5.186771e+00
557	Shoes - Video	-8.773575e+01
558	Software - Video	-4.155639e+00
559	Sports - Video	-3.962687e+01
560	Tools - Video	-8.136646e+01
561	Toys - Video	-1.940240e+02
562	Apparel - Video DVD	-8.443709e+00
563	Automotive - Video DVD	-1.164013e+01
564	Baby - Video DVD	-1.676983e+01
565	Beauty - Video DVD	-4.604277e+00
566	Books - Video DVD	1.227026e+02
567	Camera - Video DVD	-6.728530e+00
568	Digital_Ebook_Purchase - Video DVD	-3.235775e+02
569	Digital_Music_Purchase - Video DVD	-1.445676e+02
570	Digital_Video_Download - Video DVD	-5.953873e+02
571	Electronics - Video DVD	1.757449e+01
572	Furniture - Video DVD	-1.340608e+00
573	Grocery - Video DVD	-1.274995e+00
574	Health & Personal Care - Video DVD	-1.199490e+01
575	Home - Video DVD	-1.931194e+01
576	Home Entertainment - Video DVD	-7.328927e+01
577	Home Improvement - Video DVD	-2.719617e+01
578	Kitchen - Video DVD	-6.498388e+00
579	Lawn and Garden - Video DVD	-1.278459e+01
580	Luggage - Video DVD	4.199020e+00
581	Mobile_Apps - Video DVD	-6.882477e+02
582	Mobile_Electronics - Video DVD	1.987851e+00
583	Music - Video DVD	1.353203e+02
584	Musical Instruments - Video DVD	1.902076e+00
585	Office Products - Video DVD	-4.681053e+00
586	Outdoors - Video DVD	-5.295216e+00
587	PC - Video DVD	-3.383080e+01
588	Personal_Care_Appliances - Video DVD	5.263454e+00
589	Pet Products - Video DVD	-7.200539e-01
590	Shoes - Video DVD	-2.673905e+01



591	Software - Video DVD	4.774743e+00
592	Sports - Video DVD	1.869534e+01
593	Tools - Video DVD	-3.228839e+01
594	Toys - Video DVD	-1.219398e+02
595	Video - Video DVD	1.471411e+02
596	Apparel - Video Games	-8.283063e+00
597	Automotive - Video Games	-1.080400e+01
598	Baby - Video Games	-1.250998e+01
599	Beauty - Video Games	-4.508309e+00
600	Books - Video Games	2.276464e+01
601	Camera - Video Games	-2.739239e+00
602	Digital_Ebook_Purchase - Video Games	-4.929654e+01
603	Digital_Music_Purchase - Video Games	-5.053077e+01
604	Digital_Video_Download - Video Games	-1.020140e+02
605	Electronics - Video Games	1.326894e+01
606	Furniture - Video Games	-1.215249e+00
607	Grocery - Video Games	-1.219874e+00
608	Health & Personal Care - Video Games	-1.118574e+01
609	Home - Video Games	-1.599888e+01
610	Home Entertainment - Video Games	-4.371575e+01
611	Home Improvement - Video Games	-2.341869e+01
612	Kitchen - Video Games	-5.620386e+00
613	Lawn and Garden - Video Games	-1.174420e+01
614	Luggage - Video Games	4.419094e+00
615	Mobile_Apps - Video Games	-1.031592e+02
616	Mobile_Electronics - Video Games	2.144749e+00
617	Music - Video Games	2.373487e+01
618	Musical Instruments - Video Games	2.639599e+00
619	Office Products - Video Games	-3.597190e+00
620	Outdoors - Video Games	-4.313175e+00
621	PC - Video Games	-1.344295e+01
622	Personal_Care_Appliances - Video Games	5.502847e+00
623	Pet Products - Video Games	-6.321804e-01
624	Shoes - Video Games	-2.038829e+01
625	Software - Video Games	4.927014e+00

626	Sports - Video Games	1.666925e+01
627	Tools - Video Games	-2.709112e+01
628	Toys - Video Games	-4.859289e+01
629	Video - Video Games	8.097969e+01
630	Video DVD - Video Games	1.820526e+00
631	Apparel - Watches	-6.422233e+00
632	Automotive - Watches	-4.503531e+00
633	Baby - Watches	1.974572e+00
634	Beauty - Watches	-3.284217e+00
635	Books - Watches	4.141356e+01
636	Camera - Watches	1.535328e+01
637	Digital_Ebook_Purchase - Watches	-2.163243e+01
638	Digital_Music_Purchase - Watches	-2.422073e+01
639	Digital_Video_Download - Watches	-6.787809e+01
640	Electronics - Watches	2.919289e+01
641	Furniture - Watches	4.398742e-01
642	Grocery - Watches	-4.818276e-01
643	Health & Personal Care - Watches	-5.077394e+00
644	Home - Watches	-3.794274e+00
645	Home Entertainment - Watches	-2.206329e+01
646	Home Improvement - Watches	-1.178072e+01
647	Kitchen - Watches	1.987572e+00
648	Lawn and Garden - Watches	-4.655268e+00
649	Luggage - Watches	7.954311e+00
650	Mobile_Apps - Watches	-6.874314e+01
651	Mobile_Electronics - Watches	4.369554e+00
652	Music - Watches	4.228063e+01
653	Musical Instruments - Watches	1.750022e+01
654	Office Products - Watches	5.942326e+00
655	Outdoors - Watches	4.336027e+00
656	PC - Watches	7.901115e+00
657	Personal_Care_Appliances - Watches	9.773269e+00
658	Pet Products - Watches	5.452773e-01
659	Shoes - Watches	-5.282619e+00
660	Software - Watches	7.264250e+00

661	Sports - Watches	2.893698e+01
662	Tools - Watches	-1.416488e+01
663	Toys - Watches	-2.308570e+01
664	Video - Watches	9.221431e+01
665	Video DVD - Watches	2.313600e+01
666	Video Games - Watches	1.629003e+01
667	Apparel - Wireless	-6.462655e+00
668	Automotive - Wireless	-4.699367e+00
669	Baby - Wireless	1.994169e+00
670	Beauty - Wireless	-3.305412e+00
671	Books - Wireless	5.922221e+01
672	Camera - Wireless	1.883539e+01
673	Digital_Ebook_Purchase - Wireless	-3.170232e+01
674	Digital_Music_Purchase - Wireless	-3.388824e+01
675	Digital_Video_Download - Wireless	-9.824524e+01
676	Electronics - Wireless	3.514112e+01
677	Furniture - Wireless	4.155887e-01
678	Grocery - Wireless	-4.930963e-01
679	Health & Personal Care - Wireless	-5.275959e+00
680	Home - Wireless	-4.312091e+00
681	Home Entertainment - Wireless	-2.795578e+01
682	Home Improvement - Wireless	-1.283678e+01
683	Kitchen - Wireless	1.936854e+00
684	Lawn and Garden - Wireless	-4.894442e+00
685	Luggage - Wireless	7.957378e+00
686	Mobile_Apps - Wireless	-9.979581e+01
687	Mobile_Electronics - Wireless	4.348135e+00
688	Music - Wireless	6.054653e+01
689	Musical Instruments - Wireless	1.999237e+01
690	Office Products - Wireless	6.115403e+00
691	Outdoors - Wireless	4.392070e+00
692	PC - Wireless	1.021292e+01
693	Personal_Care_Appliances - Wireless	9.810850e+00
694	Pet Products - Wireless	5.279511e-01
695	Shoes - Wireless	-6.230182e+00

696		Software - Wireless	7.251362e+00
697		Sports - Wireless	3.193130e+01
698		Tools - Wireless	-1.565204e+01
699		Toys - Wireless	-3.179794e+01
700		Video - Wireless	1.190727e+02
701		Video DVD - Wireless	3.298468e+01
702		Video Games - Wireless	1.915378e+01
703		Watches - Wireless	-2.684711e-01
	P.unadj	P.adj	
1	9.836316e-07	6.914930e-04	
2	2.461947e-11	1.730749e-08	
3	1.207603e-07	8.489446e-05	
4	4.262359e-01	1.000000e+00	
5	1.839583e-02	1.000000e+00	
6	5.483710e-04	3.855048e-01	
7	1.095659e-23	7.702482e-21	
8	5.612330e-66	3.945468e-63	
9	8.195633e-226	5.761530e-223	
10	1.604267e-08	1.127800e-05	
11	9.647264e-16	6.782026e-13	
12	9.109117e-24	6.403710e-21	
13	2.383226e-29	1.675408e-26	
14	1.433810e-05	1.007969e-02	
15	1.636066e-243	1.150154e-240	
16	4.760713e-06	3.346781e-03	
17	7.183050e-02	1.000000e+00	
18	1.031397e-94	7.250718e-92	
19	3.955446e-02	1.000000e+00	
20	0.000000e+00	0.000000e+00	
21	0.000000e+00	0.000000e+00	
22	2.095716e-05	1.473289e-02	
23	3.770924e-03	1.000000e+00	
24	5.060454e-117	3.557499e-114	
25	6.459280e-02	1.000000e+00	
26	0.000000e+00	0.000000e+00	

27	0.000000e+00	0.000000e+00
28	1.312487e-27	9.226781e-25
29	5.731393e-01	1.000000e+00
30	8.981329e-56	6.313874e-53
31	0.000000e+00	0.000000e+00
32	5.607968e-01	1.000000e+00
33	0.000000e+00	0.000000e+00
34	0.000000e+00	0.000000e+00
35	0.000000e+00	0.000000e+00
36	0.000000e+00	0.000000e+00
37	5.798863e-22	4.076601e-19
38	1.121627e-53	7.885041e-51
39	3.450799e-125	2.425912e-122
40	6.806060e-08	4.784660e-05
41	5.021490e-08	3.530107e-05
42	3.113728e-71	2.188951e-68
43	0.000000e+00	0.000000e+00
44	0.000000e+00	0.000000e+00
45	0.000000e+00	0.000000e+00
46	3.847067e-06	2.704488e-03
47	1.105835e-01	1.000000e+00
48	8.383817e-01	1.000000e+00
49	3.628496e-03	1.000000e+00
50	5.820366e-03	1.000000e+00
51	3.253114e-01	1.000000e+00
52	3.491485e-02	1.000000e+00
53	1.669799e-02	1.000000e+00
54	1.294457e-08	9.100031e-06
55	1.566380e-02	1.000000e+00
56	5.366786e-02	1.000000e+00
57	9.567386e-01	1.000000e+00
58	5.573454e-01	1.000000e+00
59	1.985046e-01	1.000000e+00
60	5.669750e-02	1.000000e+00
61	2.642430e-01	1.000000e+00

62	7.946707e-01	1.000000e+00
63	6.988438e-01	1.000000e+00
64	6.398793e-02	1.000000e+00
65	7.922878e-02	1.000000e+00
66	5.353726e-01	1.000000e+00
67	3.002383e-06	2.110675e-03
68	5.944495e-01	1.000000e+00
69	5.353632e-09	3.763603e-06
70	2.694009e-02	1.000000e+00
71	2.854718e-67	2.006867e-64
72	1.361735e-25	9.572995e-23
73	3.171324e-01	1.000000e+00
74	3.899563e-02	1.000000e+00
75	1.816335e-47	1.276883e-44
76	2.793957e-55	1.964152e-52
77	7.473117e-02	1.000000e+00
78	8.878097e-01	1.000000e+00
79	7.139325e-09	5.018945e-06
80	1.880154e-02	1.000000e+00
81	2.767700e-07	1.945693e-04
82	3.985333e-03	1.000000e+00
83	8.672334e-212	6.096651e-209
84	5.946145e-51	4.180140e-48
85	7.072121e-21	4.971701e-18
86	1.046725e-30	7.358474e-28
87	0.000000e+00	0.000000e+00
88	8.150121e-141	5.729535e-138
89	3.297119e-01	1.000000e+00
90	8.093746e-01	1.000000e+00
91	3.079196e-03	1.000000e+00
92	3.312765e-05	2.328874e-02
93	1.433035e-03	1.000000e+00
94	1.947839e-103	1.369331e-100
95	7.468572e-02	1.000000e+00
96	0.000000e+00	0.000000e+00

97	0.000000e+00	0.000000e+00
98	1.100486e-12	7.736418e-10
99	1.264005e-01	1.000000e+00
100	0.000000e+00	0.000000e+00
101	0.000000e+00	0.000000e+00
102	1.319774e-02	1.000000e+00
103	6.702512e-01	1.000000e+00
104	1.831044e-02	1.000000e+00
105	1.733005e-30	1.218302e-27
106	1.124166e-05	7.902887e-03
107	4.283320e-02	1.000000e+00
108	1.080993e-36	7.599379e-34
109	5.004155e-02	1.000000e+00
110	0.000000e+00	0.000000e+00
111	8.698507e-115	6.115050e-112
112	3.551695e-01	1.000000e+00
113	2.216220e-01	1.000000e+00
114	2.775229e-152	1.950986e-149
115	7.056767e-227	4.960907e-224
116	2.696982e-02	1.000000e+00
117	7.536911e-01	1.000000e+00
118	1.909963e-01	1.000000e+00
119	2.121585e-12	1.491474e-09
120	7.518980e-02	1.000000e+00
121	1.397749e-11	9.826173e-09
122	6.020243e-07	4.232231e-04
123	3.723098e-01	1.000000e+00
124	3.549614e-04	2.495379e-01
125	1.237008e-40	8.696169e-38
126	3.581869e-06	2.518054e-03
127	2.314815e-24	1.627315e-21
128	1.532439e-30	1.077304e-27
129	3.421321e-166	2.405189e-163
130	2.326754e-29	1.635708e-26
131	9.976171e-01	1.000000e+00



132	5.001698e-01	1.000000e+00
133	4.435908e-08	3.118443e-05
134	4.224579e-05	2.969879e-02
135	2.711223e-31	1.905989e-28
136	8.831057e-20	6.208233e-17
137	4.675269e-07	3.286714e-04
138	7.835930e-01	1.000000e+00
139	3.351736e-08	2.356270e-05
140	1.488891e-02	1.000000e+00
141	8.141774e-81	5.723667e-78
142	8.344172e-28	5.865953e-25
143	1.403747e-02	1.000000e+00
144	2.211300e-04	1.554544e-01
145	1.916104e-74	1.347021e-71
146	1.645906e-64	1.157072e-61
147	1.297679e-01	1.000000e+00
148	9.898466e-01	1.000000e+00
149	4.048683e-01	1.000000e+00
150	2.563202e-02	1.000000e+00
151	6.327920e-05	4.448528e-02
152	9.569288e-03	1.000000e+00
153	4.210985e-07	2.960322e-04
154	4.122491e-21	2.898111e-18
155	1.041939e-20	7.324831e-18
156	1.307228e-13	9.189809e-11
157	1.118431e-08	7.862568e-06
158	2.602203e-01	1.000000e+00
159	7.849363e-07	5.518102e-04
160	1.620136e-31	1.138955e-28
161	1.148759e-34	8.075772e-32
162	3.839530e-84	2.699190e-81
163	6.574260e-02	1.000000e+00
164	2.920725e-03	1.000000e+00
165	3.633933e-02	1.000000e+00
166	6.264361e-22	4.403846e-19

167	3.967985e-19	2.789493e-16
168	2.276897e-35	1.600659e-32
169	1.493805e-30	1.050145e-27
170	8.504478e-11	5.978648e-08
171	5.234622e-21	3.679939e-18
172	6.134053e-01	1.000000e+00
173	3.380510e-57	2.376498e-54
174	0.000000e+00	0.000000e+00
175	5.352691e-01	1.000000e+00
176	0.000000e+00	0.000000e+00
177	0.000000e+00	0.000000e+00
178	0.000000e+00	0.000000e+00
179	0.000000e+00	0.000000e+00
180	1.892378e-05	1.330341e-02
181	0.000000e+00	0.000000e+00
182	9.534027e-09	6.702421e-06
183	6.074079e-02	1.000000e+00
184	9.858164e-49	6.930289e-46
185	0.000000e+00	0.000000e+00
186	0.000000e+00	0.000000e+00
187	3.923956e-157	2.758541e-154
188	2.456626e-169	1.727008e-166
189	2.506480e-76	1.762056e-73
190	4.126399e-85	2.900859e-82
191	8.145410e-15	5.726223e-12
192	1.275830e-08	8.969082e-06
193	5.278829e-05	3.711017e-02
194	5.926309e-07	4.166195e-04
195	9.401531e-01	1.000000e+00
196	1.382125e-02	1.000000e+00
197	3.048650e-11	2.143201e-08
198	2.143791e-12	1.507085e-09
199	1.813214e-30	1.274690e-27
200	5.976842e-01	1.000000e+00
201	2.378201e-02	1.000000e+00

202	6.675239e-02	1.000000e+00
203	3.261245e-09	2.292655e-06
204	4.269747e-07	3.001632e-04
205	1.005508e-12	7.068722e-10
206	2.023093e-11	1.422234e-08
207	2.504635e-04	1.760758e-01
208	1.730259e-08	1.216372e-05
209	5.952194e-01	1.000000e+00
210	8.013293e-31	5.633345e-28
211	5.325023e-24	3.743491e-21
212	7.610962e-68	5.350506e-65
213	7.742768e-236	5.443166e-233
214	1.221509e-08	8.587206e-06
215	3.927990e-07	2.761377e-04
216	2.700228e-262	1.898261e-259
217	0.000000e+00	0.000000e+00
218	0.000000e+00	0.000000e+00
219	0.000000e+00	0.000000e+00
220	8.832599e-11	6.209317e-08
221	4.787839e-03	1.000000e+00
222	5.314124e-02	1.000000e+00
223	4.291020e-69	3.016587e-66
224	3.827468e-219	2.690710e-216
225	0.000000e+00	0.000000e+00
226	0.000000e+00	0.000000e+00
227	1.895686e-42	1.332668e-39
228	3.607755e-83	2.536252e-80
229	3.227491e-01	1.000000e+00
230	0.000000e+00	0.000000e+00
231	9.918227e-01	1.000000e+00
232	9.469774e-18	6.657251e-15
233	1.473656e-31	1.035980e-28
234	2.520399e-44	1.771841e-41
235	2.497797e-06	1.755951e-03
236	2.977420e-56	2.093126e-53

237	9.884711e-08	6.948952e-05
238	0.000000e+00	0.000000e+00
239	0.000000e+00	0.000000e+00
240	0.000000e+00	0.000000e+00
241	2.050877e-20	1.441767e-17
242	1.367992e-01	1.000000e+00
243	1.796786e-01	1.000000e+00
244	2.134286e-33	1.500403e-30
245	3.695674e-66	2.598059e-63
246	0.000000e+00	0.000000e+00
247	3.480062e-130	2.446483e-127
248	1.438112e-11	1.010993e-08
249	5.912015e-37	4.156146e-34
250	1.368373e-04	9.619661e-02
251	0.000000e+00	0.000000e+00
252	7.626843e-02	1.000000e+00
253	5.887234e-62	4.138725e-59
254	6.456204e-14	4.538711e-11
255	8.339695e-14	5.862806e-11
256	1.009744e-05	7.098502e-03
257	5.541365e-05	3.895580e-02
258	2.175244e-42	1.529197e-39
259	2.103091e-02	1.000000e+00
260	5.481722e-66	3.853650e-63
261	1.842887e-78	1.295550e-75
262	0.000000e+00	0.000000e+00
263	5.557646e-27	3.907025e-24
264	5.525253e-01	1.000000e+00
265	3.453286e-01	1.000000e+00
266	2.386432e-15	1.677662e-12
267	1.410457e-15	9.915516e-13
268	5.733677e-77	4.030775e-74
269	2.390325e-43	1.680398e-40
270	2.009829e-02	1.000000e+00
271	5.661607e-15	3.980110e-12

272	4.012819e-08	2.821011e-05
273	0.000000e+00	0.000000e+00
274	3.496674e-03	1.000000e+00
275	7.876244e-45	5.537000e-42
276	4.569018e-07	3.212020e-04
277	4.329398e-13	3.043566e-10
278	5.636246e-11	3.962281e-08
279	2.576624e-03	1.000000e+00
280	1.062610e-04	7.470151e-02
281	4.362624e-40	3.066925e-37
282	1.554973e-03	1.000000e+00
283	4.334300e-45	3.047013e-42
284	1.483518e-54	1.042913e-51
285	5.089266e-256	3.577754e-253
286	5.357452e-27	3.766289e-24
287	6.948473e-01	1.000000e+00
288	3.936254e-01	1.000000e+00
289	2.231380e-12	1.568660e-09
290	1.249331e-10	8.782796e-08
291	1.469252e-54	1.032884e-51
292	1.165253e-32	8.191729e-30
293	1.408224e-01	1.000000e+00
294	1.179701e-11	8.293295e-09
295	5.717920e-09	4.019698e-06
296	1.208406e-260	8.495092e-258
297	1.526125e-03	1.000000e+00
298	3.464766e-42	2.435730e-39
299	1.942545e-08	1.365609e-05
300	3.933740e-01	1.000000e+00
301	7.017010e-13	4.932958e-10
302	5.697854e-13	4.005591e-10
303	1.510863e-05	1.062136e-02
304	1.606498e-04	1.129368e-01
305	0.000000e+00	0.000000e+00
306	1.244116e-35	8.746139e-33

307	0.000000e+00	0.000000e+00
308	0.000000e+00	0.000000e+00
309	0.000000e+00	0.000000e+00
310	8.593716e-223	6.041383e-220
311	8.283764e-01	1.000000e+00
312	4.384211e-01	1.000000e+00
313	1.285134e-14	9.034492e-12
314	5.540526e-22	3.894990e-19
315	0.000000e+00	0.000000e+00
316	2.278490e-73	1.601779e-70
317	2.930627e-01	1.000000e+00
318	9.586654e-15	6.739417e-12
319	3.589777e-11	2.523613e-08
320	0.000000e+00	0.000000e+00
321	4.629416e-04	3.254479e-01
322	0.000000e+00	0.000000e+00
323	7.208037e-50	5.067250e-47
324	1.701229e-02	1.000000e+00
325	3.151716e-01	1.000000e+00
326	8.394876e-23	5.901598e-20
327	1.264810e-27	8.891616e-25
328	1.050340e-19	7.383891e-17
329	4.892481e-09	3.439414e-06
330	1.286048e-01	1.000000e+00
331	7.972404e-10	5.604600e-07
332	7.303253e-47	5.134187e-44
333	1.648564e-51	1.158941e-48
334	1.882180e-125	1.323173e-122
335	1.736760e-02	1.000000e+00
336	1.824729e-03	1.000000e+00
337	3.303533e-02	1.000000e+00
338	4.121168e-29	2.897181e-26
339	1.664893e-27	1.170420e-24
340	2.537006e-52	1.783515e-49
341	7.254399e-44	5.099842e-41

342	1.022755e-14	7.189969e-12
343	1.546007e-28	1.086843e-25
344	9.251000e-01	1.000000e+00
345	6.604462e-127	4.642937e-124
346	5.321771e-01	1.000000e+00
347	1.761489e-01	1.000000e+00
348	1.944156e-06	1.366741e-03
349	2.702078e-11	1.899561e-08
350	2.251608e-12	1.582880e-09
351	2.341670e-16	1.646194e-13
352	9.168523e-05	6.445472e-02
353	1.674695e-01	1.000000e+00
354	7.059225e-01	1.000000e+00
355	7.471602e-03	1.000000e+00
356	8.415093e-02	1.000000e+00
357	6.405093e-01	1.000000e+00
358	8.336046e-02	1.000000e+00
359	5.317613e-02	1.000000e+00
360	1.922482e-05	1.351505e-02
361	1.371524e-01	1.000000e+00
362	8.496226e-01	1.000000e+00
363	4.849055e-01	1.000000e+00
364	1.295007e-01	1.000000e+00
365	3.540211e-01	1.000000e+00
366	4.607126e-02	1.000000e+00
367	7.029234e-02	1.000000e+00
368	8.163279e-01	1.000000e+00
369	1.870249e-01	1.000000e+00
370	4.638089e-02	1.000000e+00
371	1.627796e-05	1.144340e-02
372	1.179943e-01	1.000000e+00
373	7.639061e-02	1.000000e+00
374	4.084263e-01	1.000000e+00
375	8.465702e-01	1.000000e+00
376	9.600138e-01	1.000000e+00



377	9.374735e-01	1.000000e+00
378	3.914422e-02	1.000000e+00
379	1.077222e-08	7.572868e-06
380	3.204108e-02	1.000000e+00
381	2.148309e-11	1.510261e-08
382	4.753245e-03	1.000000e+00
383	0.000000e+00	0.000000e+00
384	1.137216e-86	7.994628e-84
385	3.888262e-31	2.733448e-28
386	2.665757e-46	1.874027e-43
387	0.000000e+00	0.000000e+00
388	1.988987e-226	1.398258e-223
389	2.890222e-01	1.000000e+00
390	8.379200e-01	1.000000e+00
391	5.405551e-03	1.000000e+00
392	5.804213e-01	1.000000e+00
393	1.135542e-42	7.982857e-40
394	2.108968e-13	1.482605e-10
395	2.453763e-06	1.724995e-03
396	4.460677e-02	1.000000e+00
397	2.413332e-20	1.696572e-17
398	0.000000e+00	0.000000e+00
399	2.032455e-07	1.428816e-04
400	0.000000e+00	0.000000e+00
401	5.754336e-101	4.045298e-98
402	4.353476e-20	3.060494e-17
403	2.032259e-13	1.428678e-10
404	3.743498e-41	2.631679e-38
405	1.228051e-29	8.633199e-27
406	3.236222e-01	1.000000e+00
407	9.092061e-22	6.391719e-19
408	2.342458e-17	1.646748e-14
409	4.755590e-12	3.343179e-09
410	3.242298e-10	2.279336e-07
411	5.769384e-03	1.000000e+00

412	1.395027e-07	9.807042e-05
413	3.756033e-22	2.640491e-19
414	7.025914e-24	4.939217e-21
415	2.599533e-49	1.827471e-46
416	1.250045e-03	8.787819e-01
417	1.209450e-04	8.502437e-02
418	8.204190e-03	1.000000e+00
419	3.252707e-18	2.286653e-15
420	1.714273e-15	1.205134e-12
421	2.439403e-24	1.714900e-21
422	3.523712e-22	2.477170e-19
423	1.420012e-10	9.982685e-08
424	2.646690e-17	1.860623e-14
425	9.066173e-02	1.000000e+00
426	8.614805e-50	6.056208e-47
427	6.477787e-02	1.000000e+00
428	7.567027e-03	1.000000e+00
429	5.890580e-06	4.141078e-03
430	1.311802e-08	9.221968e-06
431	3.071686e-09	2.159395e-06
432	1.949563e-10	1.370543e-07
433	8.702941e-02	1.000000e+00
434	5.444618e-03	1.000000e+00
435	4.384194e-16	3.082088e-13
436	6.976569e-26	4.904528e-23
437	1.842422e-70	1.295223e-67
438	6.714951e-140	4.720610e-137
439	1.987329e-09	1.397092e-06
440	1.329944e-06	9.349508e-04
441	5.301704e-87	3.727098e-84
442	0.000000e+00	0.000000e+00
443	0.000000e+00	0.000000e+00
444	0.000000e+00	0.000000e+00
445	2.628958e-12	1.848157e-09
446	1.209734e-03	8.504429e-01

447	3.367223e-02	1.000000e+00
448	7.365621e-72	5.178032e-69
449	4.183091e-159	2.940713e-156
450	0.000000e+00	0.000000e+00
451	7.638941e-239	5.370176e-236
452	2.537203e-45	1.783653e-42
453	1.517467e-83	1.066779e-80
454	9.599398e-01	1.000000e+00
455	0.000000e+00	0.000000e+00
456	5.563908e-01	1.000000e+00
457	2.431153e-05	1.709101e-02
458	3.612863e-42	2.539843e-39
459	3.171972e-45	2.229896e-42
460	4.424283e-44	3.110271e-41
461	8.759719e-177	6.158082e-174
462	8.386842e-01	1.000000e+00
463	3.809662e-02	1.000000e+00
464	1.239395e-221	8.712947e-219
465	4.182301e-02	1.000000e+00
466	2.644089e-05	1.858795e-02
467	6.711075e-03	1.000000e+00
468	2.937614e-50	2.065142e-47
469	6.733008e-02	1.000000e+00
470	0.000000e+00	0.000000e+00
471	7.490622e-157	5.265907e-154
472	9.572668e-03	1.000000e+00
473	8.889066e-01	1.000000e+00
474	1.892096e-174	1.330143e-171
475	1.789247e-297	1.257841e-294
476	1.664074e-02	1.000000e+00
477	6.937627e-01	1.000000e+00
478	5.034516e-02	1.000000e+00
479	1.122374e-17	7.890291e-15
480	5.754920e-01	1.000000e+00
481	3.046390e-01	1.000000e+00

482	2.999577e-24	2.108703e-21
483	7.464836e-04	5.247780e-01
484	5.614524e-33	3.947011e-30
485	2.127720e-180	1.495787e-177
486	3.254043e-12	2.287592e-09
487	0.000000e+00	0.000000e+00
488	1.498544e-169	1.053477e-166
489	2.181751e-53	1.533771e-50
490	5.657329e-40	3.977102e-37
491	1.573504e-105	1.106173e-102
492	1.056553e-47	7.427567e-45
493	5.250254e-02	1.000000e+00
494	4.226708e-20	2.971375e-17
495	2.027240e-23	1.425150e-20
496	2.924166e-294	2.055689e-291
497	1.575497e-05	1.107574e-02
498	7.582465e-03	1.000000e+00
499	2.983328e-108	2.097279e-105
500	5.874228e-02	1.000000e+00
501	0.000000e+00	0.000000e+00
502	0.000000e+00	0.000000e+00
503	7.617139e-14	5.354849e-11
504	1.371969e-01	1.000000e+00
505	0.000000e+00	0.000000e+00
506	0.000000e+00	0.000000e+00
507	1.949839e-02	1.000000e+00
508	7.177726e-01	1.000000e+00
509	6.479991e-02	1.000000e+00
510	5.586305e-28	3.927172e-25
511	1.481012e-02	1.000000e+00
512	4.303344e-01	1.000000e+00
513	5.039174e-29	3.542539e-26
514	5.938388e-04	4.174687e-01
515	5.729281e-34	4.027684e-31
516	0.000000e+00	0.000000e+00

517	3.753787e-12	2.638912e-09
518	0.000000e+00	0.000000e+00
519	0.000000e+00	0.000000e+00
520	7.136111e-75	5.016686e-72
521	4.859955e-52	3.416548e-49
522	0.000000e+00	0.000000e+00
523	1.934531e-50	1.359976e-47
524	5.839000e-02	1.000000e+00
525	1.922543e-41	1.351548e-38
526	1.639494e-23	1.152564e-20
527	0.000000e+00	0.000000e+00
528	5.376529e-01	1.000000e+00
529	4.810920e-54	3.382076e-51
530	9.366978e-279	6.584986e-276
531	0.000000e+00	0.000000e+00
532	2.445466e-20	1.719163e-17
533	0.000000e+00	0.000000e+00
534	0.000000e+00	0.000000e+00
535	0.000000e+00	0.000000e+00
536	0.000000e+00	0.000000e+00
537	0.000000e+00	0.000000e+00
538	0.000000e+00	0.000000e+00
539	2.478845e-14	1.742628e-11
540	4.643063e-05	3.264074e-02
541	2.938172e-272	2.065535e-269
542	0.000000e+00	0.000000e+00
543	0.000000e+00	0.000000e+00
544	0.000000e+00	0.000000e+00
545	8.934657e-287	6.281064e-284
546	0.000000e+00	0.000000e+00
547	5.453184e-21	3.833589e-18
548	0.000000e+00	0.000000e+00
549	8.572847e-11	6.026711e-08
550	0.000000e+00	0.000000e+00
551	0.000000e+00	0.000000e+00

552	0.000000e+00	0.000000e+00
553	0.000000e+00	0.000000e+00
554	0.000000e+00	0.000000e+00
555	1.615277e-29	1.135539e-26
556	2.139715e-07	1.504219e-04
557	0.000000e+00	0.000000e+00
558	3.243801e-05	2.280392e-02
559	0.000000e+00	0.000000e+00
560	0.000000e+00	0.000000e+00
561	0.000000e+00	0.000000e+00
562	3.074228e-17	2.161182e-14
563	2.576232e-31	1.811091e-28
564	4.056616e-63	2.851801e-60
565	4.139018e-06	2.909729e-03
566	0.000000e+00	0.000000e+00
567	1.713853e-11	1.204839e-08
568	0.000000e+00	0.000000e+00
569	0.000000e+00	0.000000e+00
570	0.000000e+00	0.000000e+00
571	3.863725e-69	2.716199e-66
572	1.800479e-01	1.000000e+00
573	2.023109e-01	1.000000e+00
574	3.778680e-33	2.656412e-30
575	4.262869e-83	2.996797e-80
576	0.000000e+00	0.000000e+00
577	7.207978e-163	5.067209e-160
578	8.118540e-11	5.707334e-08
579	1.999015e-37	1.405308e-34
580	2.680731e-05	1.884554e-02
581	0.000000e+00	0.000000e+00
582	4.682819e-02	1.000000e+00
583	0.000000e+00	0.000000e+00
584	5.716127e-02	1.000000e+00
585	2.854047e-06	2.006395e-03
586	1.188761e-07	8.356990e-05

587	6.953555e-251	4.888349e-248
588	1.413737e-07	9.938568e-05
589	4.714918e-01	1.000000e+00
590	1.655555e-157	1.163855e-154
591	1.799371e-06	1.264958e-03
592	5.402981e-78	3.798296e-75
593	1.018092e-228	7.157190e-226
594	0.000000e+00	0.000000e+00
595	0.000000e+00	0.000000e+00
596	1.200472e-16	8.439319e-14
597	3.295318e-27	2.316608e-24
598	6.583792e-36	4.628406e-33
599	6.534643e-06	4.593854e-03
600	1.027772e-114	7.225237e-112
601	6.158159e-03	1.000000e+00
602	0.000000e+00	0.000000e+00
603	0.000000e+00	0.000000e+00
604	0.000000e+00	0.000000e+00
605	3.504904e-40	2.463947e-37
606	2.242712e-01	1.000000e+00
607	2.225127e-01	1.000000e+00
608	4.788997e-29	3.366665e-26
609	1.300938e-57	9.145596e-55
610	0.000000e+00	0.000000e+00
611	2.757281e-121	1.938368e-118
612	1.905312e-08	1.339434e-05
613	7.563676e-32	5.317264e-29
614	9.911561e-06	6.967828e-03
615	0.000000e+00	0.000000e+00
616	3.197291e-02	1.000000e+00
617	1.574630e-124	1.106965e-121
618	8.300424e-03	1.000000e+00
619	3.216733e-04	2.261363e-01
620	1.609264e-05	1.131313e-02
621	3.386422e-41	2.380654e-38



622	3.737059e-08	2.627152e-05
623	5.272690e-01	1.000000e+00
624	2.124398e-92	1.493452e-89
625	8.349572e-07	5.869749e-04
626	2.193234e-62	1.541844e-59
627	1.253055e-161	8.808979e-159
628	0.000000e+00	0.000000e+00
629	0.000000e+00	0.000000e+00
630	6.867890e-02	1.000000e+00
631	1.342899e-10	9.440580e-08
632	6.683370e-06	4.698409e-03
633	4.831673e-02	1.000000e+00
634	1.022661e-03	7.189307e-01
635	0.000000e+00	0.000000e+00
636	3.367431e-53	2.367304e-50
637	8.896963e-104	6.254565e-101
638	1.345631e-129	9.459789e-127
639	0.000000e+00	0.000000e+00
640	2.387112e-187	1.678140e-184
641	6.600282e-01	1.000000e+00
642	6.299284e-01	1.000000e+00
643	3.826465e-07	2.690005e-04
644	1.480762e-04	1.040975e-01
645	7.121040e-108	5.006091e-105
646	4.907332e-32	3.449854e-29
647	4.685908e-02	1.000000e+00
648	3.235599e-06	2.274626e-03
649	1.801310e-15	1.266321e-12
650	0.000000e+00	0.000000e+00
651	1.245007e-05	8.752402e-03
652	0.000000e+00	0.000000e+00
653	1.427208e-68	1.003327e-65
654	2.810063e-09	1.975474e-06
655	1.450809e-05	1.019919e-02
656	2.764199e-15	1.943232e-12

657	1.466424e-22	1.030896e-19
658	5.855628e-01	1.000000e+00
659	1.273503e-07	8.952726e-05
660	3.751127e-13	2.637042e-10
661	4.093051e-184	2.877415e-181
662	1.511185e-45	1.062363e-42
663	6.445380e-118	4.531102e-115
664	0.000000e+00	0.000000e+00
665	2.011048e-118	1.413767e-115
666	1.161720e-59	8.166892e-57
667	1.028819e-10	7.232598e-08
668	2.609687e-06	1.834610e-03
669	4.613357e-02	1.000000e+00
670	9.483679e-04	6.667027e-01
671	0.000000e+00	0.000000e+00
672	3.872655e-79	2.722477e-76
673	1.443554e-220	1.014818e-217
674	9.928999e-252	6.980086e-249
675	0.000000e+00	0.000000e+00
676	1.588574e-270	1.116768e-267
677	6.777110e-01	1.000000e+00
678	6.219446e-01	1.000000e+00
679	1.320634e-07	9.284060e-05
680	1.617179e-05	1.136877e-02
681	5.608244e-172	3.942596e-169
682	1.020253e-37	7.172376e-35
683	5.276323e-02	1.000000e+00
684	9.858510e-07	6.930532e-04
685	1.757235e-15	1.235336e-12
686	0.000000e+00	0.000000e+00
687	1.373002e-05	9.652201e-03
688	0.000000e+00	0.000000e+00
689	6.417078e-89	4.511205e-86
690	9.631337e-10	6.770830e-07
691	1.122765e-05	7.893037e-03
692	1.735677e-24	1.220181e-21
693	1.011135e-22	7.108280e-20
694	5.975333e-01	1.000000e+00
695	4.658950e-10	3.275242e-07
696	4.126026e-13	2.900596e-10
697	9.824238e-224	6.906439e-221
698	3.217203e-55	2.261694e-52
699	6.911372e-222	4.858695e-219
700	0.000000e+00	0.000000e+00
701	1.347189e-238	9.470739e-236
702	9.000896e-82	6.327630e-79
703	7.883367e-01	1.000000e+00